

**ASSESSMENT OF THE EFFECTIVENESS OF MOTORCYCLISTS TRAINING  
PROGRAM IN REDUCING ROAD ACCIDENTS IN TANZANIA (A CASE OF  
MWANZA)**

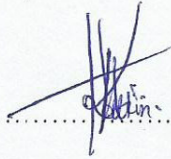
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**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE MASTER OF BUSINESS ADMINISTRATION  
(TRANSPORT AND LOGISTICS) OF THE OPEN UNIVERSITY OF  
TANZANIA**

**2013**

**DECLARATION**

The undersigned certifies that he has read and hereby recommends for acceptance by the Open University of Tanzania a dissertation entitled "Assessment of the Effectiveness of Motorcyclists Training Program in Reducing Road Accidents in Tanzania" in partial fulfillment of the requirements for the award of the Master of Business Administration (Transport and Logistics) of the Open University of Tanzania



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30 / 08 / 2013

Date

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**DECLARATION**

I, Peter P. Simon, hereby declare that, the contents of this report are the results of my own study and findings and to the best of my knowledge, they have not been presented elsewhere for a Diploma, Degree or any professional award in any Institution of Higher Learning.



PETER P. SIMON

30/AUGUST/2013

Date

## **DEDICATION**

This dissertation report is dedicated to my parents Mr. and Mrs. S.P Mkumbo, my fiancé Sauda Daudi, my brothers Timothy and Martin and my sisters Sophia, Martha and Salome for their support, patience, encouragement and everlasting love and care.

## **ACKNOWLEDGEMENTS**

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## **ABSTRACT**

This study has objectively focused on assessing the effectiveness of motorcyclists training program in reducing road accidents. With the specific objectives of assessing the motorcyclists training programs curriculum, assessing the competence of staffs providing training to motorcyclists and determining the attitude of motorcyclists towards training. The problem being the increase of road accidents involving motorcycles as a result of lack of training on road safety by motorcyclists.

The study based on descriptive research, was conducted in Mwanza region with all its districts involved in this study. The study involved a sample of 367 of commercial motorcyclists, formally and informally trained. It also involved interviewing of instructors from driving schools and officers from traffic department of Mwanza police force.

It was concluded that the curriculums have got accredited time and contents however there is no standard curriculum for motorcyclists training program in Tanzania, Motorcyclist's instructors are competent and qualified. Formal training was perceived by respondents to be an effective remedy for reducing motorcyclists' accidents.

It is recommended that, training institutions in Tanzania should sit together to set standard curriculum and Institutions should find means to increase training facilities and equipments. Government should make advertisement on TV and radio on the importance of training. While police force should continue to enforce the law on road use so as to make sure that all motorcyclists riding on road with other traffic have got training.

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## ABBREVIATIONS

BOT	Bank of Tanzania
BRC	Basic Rider Training Course
CBT	Compulsory Basic Training
DMV	Division of Motorcycles
ERC	Experienced Rider Course
FBM	Faculty of Business Management
IRC	Intermediate Rider Course
MSF	Motorcycle Safety Foundation
NHTSA	National Highway Traffic Safety
OSM	Observation Signal Maneuver
OUT	Open University of Tanzania
PSL	Position Speed Look
RTO	Region Police Commander
RTA	Roads and Traffic Association
SPSS	Statistical Package for Social Sciences
SUMATRA	Surface and Marine Transport Regulatory Authority
TRA	Tanzania Revenue Authority
TSHS	Tanzania Shillings
UK	United Kingdom
USA	United States of America
VETA	Vocational Education and Training Authority

## CHAPTER ONE

### 1.0 INTRODUCTION

#### 1.1 Background to the Problem

According to the Sumatra's Public Affairs Manager, Mr. David Mziray, in his speech on March 2009, the parliament of the United Republic of Tanzania amended the Transport Licensing Act of 1973, where the motorcycles and tricycles were allowed to be one of the means of public transportation. Commercial motorcycles common know as Bodaboda are now used in Mwanza and other region of Tanzania as means of transport for people and goods. Bodaboda transport services are a Ugandan innovation that has grown from small beginnings in the 1960s in the border region with Kenya (Malmberg-Calvo, 1994). Transportation of people between Uganda and Kenya by using motorcycles results into the name Bodaboda.

Since the permission of using motorcycles for business such as carrying people the number of motorcycles have increased as well as many lives of motorcyclists and passengers been lost while many injuries left with last longer disabilities (Police Force Tanzania Report of September, 2012). Large number of motorcyclists does not have qualification for riding motorcycles thus do not understand rules and regulations for road safety and they are not effective in riding motorcycles as a result many accidents occur in Tanzania (Police Force Tanzania Report of September, 2012). This is attested by the report on statistics of motorcycles accidents from January, 2009-June, 2012 in Mwananchi News Paper of 12, October, 2012 as (See Appendix G) shows. In 2009 there were 87826 motorcycles while in the following year 2010 the number increased up to 134831 motorcycles that is 53.52% increase before reaching 500000 motorcycles this year (2012) and this is 270.83% increase from 2010 and 469.31% increase from 2009. 3409 accidents involved motorcycle happened in 2009 caused 502 deaths while in 2010 total number of accidents involved motorcycles was 4363 this is 27.98% increase from

2009 for the accidents involved motorcycles and caused 683 deaths this is 36.06% increase from 2009 deaths. Accidents involved motorcycles increased in 2011 where there was 5384 accidents which is 23.40% increase from 2010 accidents involved motorcycles caused 945 deaths which is 38.36% increase from 2010 while from January 2012 total number of 2601 accidents involved motorcycles has already happened and caused 487 deaths. This implies that at the end of the year (2012) accidents involves motorcycles will double as well as deaths.

Motorcycles have recently increased in Tanzania, ability to maneuver and evade traffic jams as well as low fuel consumption and pocket friendly fares have won them a niche in the transport business sector (Maina, 2011). Many people got employment either employed by owners of motorcycles or by employing themselves in this business of transporting passengers. Majority of people with no formal employment are involved in this business and now they can run their own lives without depending to other people or involving to illegal businesses and for entrepreneurs has increased the diversification of business activities and therefore increased their income. Some of these were using bicycle to transport passengers and goods especially in rural areas.

Commercial motorcyclists are at more risk of accidents than drivers of other vehicles. This is due to the fact that in a bid to maximize their daily earnings, they often drive against traffic and beat traffic lights, a situation that exposes them to accidents (‘‘Use of Crash Helmets’’, 2008). The shape of the motorcycles is different from that of the cars, they are not enclosed, and hence the risk of the rider and passenger to the death and injury is high. It is important to train them to reduce traffic crashes because traffic crashes have impact on the economy of developing countries at an estimated cost of 1–2% of a country’s GNP per annum, as a result of morbidity, mortality, and property-related costs (Fouracre & Jacobs 1976; Jacobs & Sayer 1983; WHO 1989; Jadaan 1989a & 1990; Downing *et al.* 1991).

In a study done in Taiwan (Chang & Yeh, 2006) it has been observed that almost all motorcycle riders (engine capacity lower than 250cc) were self-taught with a lack of appropriate driving education or training and many accumulated their experiences via trial-and-error process. The study objective is to assess the effectiveness of motorcyclists training on reducing road accidents.

## **1.2 Statement of the Problem**

Accidents of motorcycles have increased in Tanzania mostly caused by lack of training on road safety by motorcyclists. Due to lack of training motorcyclists not understand road rules and regulations for the safety parallel to unawareness of the road signs, careless over takings, exceeding speed limit, driving without wearing helmet and carrying of more than one passenger on the motorcycle commonly known as mshikaki (Tanzania police force report of October, 2012).

According to annual police report of September, 2012, from 2010 up to june-2012 period, in 2010 the number of total accidents in Mwanza region was 652, the accidents which involved motorcycles were 58, and this is 8% of total accidents. In 2011 the number of total accidents was 633, the accidents which involved motorcycles were 147, and this is 23% of total accidents. From 2010 up to 2011 the number of accidents involved motorcycles increased by 15%. In 2012 from January to June the number of total accidents was 240, the accidents which involved motorcycles were 70, and this is 29% of total accidents. The number of accidents involved motorcycle has increased by 6% from 2011 up to june-2012. The number of the total accidents expected to increase in the end of the year 2012 as well as the number of accidents involving motorcycle.

According to traffic police department report of in Mwanza there are eight (8) driving schools recognized and registered by inspector General police who has delegated power to commander of police traffic Tanzania. But only 4 that are 50% of the total driving

schools provide training to motorcyclists. VETA has trained 546 motorcyclists since it had started to offer training to motorcyclists June, 2010 which is 30.65% of the total trained motorcyclists in Mwanza region, Lake Driving Schools has trained 117 motorcyclists since it has started to offer training to motorcyclists January, 2012 which is 6.57% of the total trained motorcyclists in Mwanza region, Igansi Driving School has trained 97 motorcyclists since it started to offer training to motorcyclists in January, 2012 which is 5.45% of the total motorcyclists in Mwanza region, Victoria Driving School has trained 226 motorcyclists since it has started to offer training to motorcyclists January, 2012 which is 12.69 of the total motorcyclists in Mwanza region and 795 motorcyclists trained during the road safety week of 2012, September which is 44.64% of the total trained motorcyclists in Mwanza region. This makes the total number of trained motorcyclists in Mwanza region from 2010 up to 2012 to be 1781 which is 22% of the total motorcyclists 7959 (see appendix F) in Mwanza region While 78% motorcyclists are not trained, this attest the statement by the police force report September-2012 which state that “Accidents involving motorcycles has increased in Tanzania caused by lack of training on road safety by motorcyclists and most of them do not have training from driving schools recognized and registered by inspector General police who has delegated power to commander of police traffic”. Data of trained motorcyclists are based from driving schools record of before October 2012.

Despite the efforts made by the government to reduce road accidents involving motorcycles through training provide in the safety week, there is no empirical evidence on the assessment of the effectiveness of motorcyclist training program in reducing road accidents. Due to the fore mentioned facts, study intended to assess the effectiveness of motorcyclist training program in reducing road accidents



### **1.3 Research Objectives**

#### **1.3.1 General Objective**

To assess the effectiveness of motorcyclists training program in reducing road accidents

#### **1.3.2 Specific Objectives**

1. To assess the motorcyclists training program's curriculum
2. To assess the competence of staffs providing training to motorcyclists
3. To determine the attitude of motorcyclists towards training

### **1.4 Research Questions**

1. Is the motorcyclist training programs use curriculum with accredited time and contents?
2. Are the staffs providing training to motorcyclists posses required qualification?
3. Are there positive attitudes among motorcyclists towards training?

### **1.5 Significance of the Study**

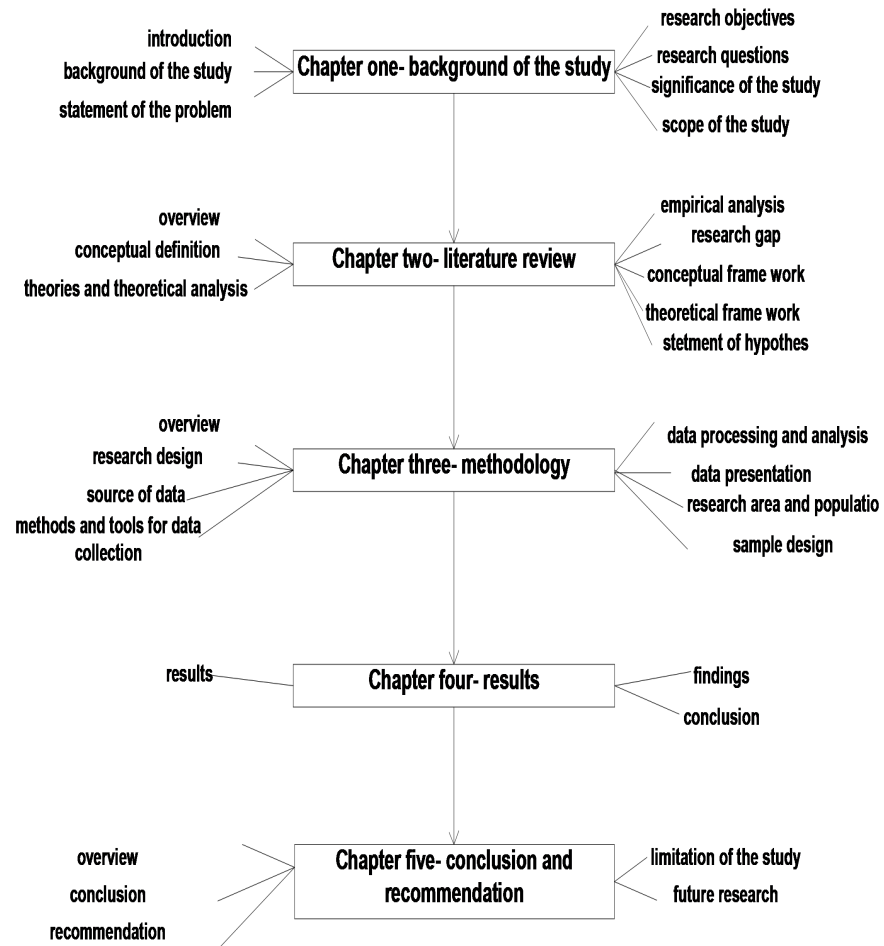
Based on the above problem statement, the purpose of this research is to assess the motorcyclists training program on reducing road accidents, with specific objectives of assessing the motorcyclists training programs, assessing the competence of staffs providing training to motorcyclists and determining the attitude of motorcyclists towards training. Basing on these objectives the study has various significances such as; understanding on the importance of training to motorcyclists and also the study helps these motorcyclists to have positive attitudes towards training. It leads driving schools to understand standard contents and duration for the training of motorcyclists and to set standard qualifications for motorcyclist's instructor for their schools. Motorcyclist's instructors can understand the kind and type of course they need in order to be competent. The study helps planners and policy makers in their process of planning and making of

policies. The study helps future researcher in addressing the same issue or another issue related to this study. By recognizing the factors for positive attitude among motorcyclists towards training, the government can embark on ways which can have an effect to motorcyclists towards training and hence having safe roads and decongestion of the hospitals. The General Public benefit by knowing that the motorcycles as a mode of transport is safe and thus have confidence in using it and avoid using much expensive modes of transport and increase employment to motorcyclists.

### **1.6 Scope of the Study**

As the matter of fact transportation industry is very broad which includes models such as air, water, rail, road, pipelines etc. the study covered road model particularly on motorcycles means of transport. Motorcycles are all over Tanzania then the study focused on Mwanza Region with all its seven districts such as Ilemela, Nyamagana, Misungwi, Ukerewe, Kwimba, Magu and Sengerema. The choice of Mwanza region based on the fact it is one of the regions where the motorcycles started to operate commercially. The study focused on the effectiveness of motorcyclists training on reducing road accident involving motorcycles.

## 1.7 Organization of the Study



**Figure 1.1: Research Organization**

*Source: Author, 2012*

## **CHAPTER TWO**

### **2.0 LITERATURE REVIEW**

#### **2.1 Overview**

The dissertation based on studying the impact of motorcyclists training program in reducing road accidents in Tanzania a case of Mwanza. In this regard it is necessary first to develop clear perception about the concepts related with the issue. Keeping in view this need this section consists of review of the literature focused on the assessment of the motorcyclists training programs, assessment of the competence of staffs providing training to motorcyclists and determination of the attitude of motorcyclists towards training in Tanzania so that with the help of the related research works, a picture portrayed where all the players identified, Critical review of supporting theories and empirical analysis of relevant studies done in this chapter. Analytical and conceptual framework and most important the gap in the literature witnessed.

#### **2.2 Conceptual Definitions**

##### **2.2.1 Assessment**

Assessment is the process of gathering and discussing information from multiple and diverse sources in order to develop a deep understanding of what students know, understand, and can do with their knowledge as a result of their educational experiences; the process culminates when assessment results are used to improve subsequent learning (Weimer, 2002). But in case of this study, assessment can be understood as the process of gathering and discussing information from multiple and diverse sources in order to develop a deep understanding on trend of motorcyclists training program on reducing road accidents.

### **2.2.2 Motorcyclists**

Motorcyclists – are people operating or in control of the motorcycles (Pickrell and Starnes, 2008). In this study motorcyclists are the people are operator and controller of the motorcycles

### **2.2.3 Training**

Defined as teaching (a person or animal) a particular skill or type of behavior through regular practice and instruction (Concise Oxford Dictionary, 2010), in this study the item refers to teaching a person to ride motorcycle.

### **2.2.4 Motorcyclists Training Program**

Motorcyclists training program as used in this study means teaching motorcyclists on road safety and riding skills through regular practice and instruction.

### **2.2.5 Reduction**

Reduction defined as to become smaller in size, number, extent, degree, or intensity, or make something smaller in this way (Microsoft Encarta 2009). In the study reduction means decreases of the number of road accidents

### **2.2.6 Road**

Road means the carriageway or portion of any road to which the public has right of access for vehicular traffic being that portion commonly in use for vehicular traffic, and includes the portion of any bridge used for that purpose (The Transport Licensing Act 1973 page 6)

### **2.2.7 Accidents**

Accidents are defined as unexpected adverse event. May be a fall, crash, collision, and explosion (Portal 2003) in case of this study are defined as collision or similar incident

involving a moving vehicle, resulting in property damage, personal injury or death (Microsoft Encarta 2009)

### **2.2.8 Road Accident**

Road accident (or traffic accident) definition used for statistics in most countries collision occurring on a public road and involving at least one moving vehicle, Road accidents include damage-only accidents and injury-producing accidents (Portal 2003).

### **2.2.9 Bodaboda**

Bodaboda is a transport service that used to transport people from Uganda pass through the border to Kenya by using motorcycle (Malmberg-Calvo, 1994). In this study it is used to mean the transport service for people from one place to another by using motorcycle.

## **2.3 Overview**

### **2.3.1 Mwanza Region**

Mwanza region is located in the northern part of Tanzania just South of Lake Victoria. The Lake Victoria waters separate the region from the neighboring countries of Kenya and Uganda. To the East, North and West are the sister lake dominated regions of Mara and Kagera. To the South there is Shinyanga region. It lies between latitude 1° 30' and 3° 0' South of Equator and the longitudes 31° 45' and 34° 10' East of Greenwich. The region has a total surface area of 35,187 km<sup>2</sup> of 20,095 km<sup>2</sup> is dry land area and 15,092 km<sup>2</sup> is water area. Land wise, Mwanza is the fourth smallest region after Dar es Salaam, Kilimanjaro, and Mtwara. The region has a total of 8 districts, seven Local Government Authorities, 33 divisions, 174 wards, 683 villages and 481 streets (small administrative areas resulting from subdividing wards within town ships, municipalities and cities and for this case is within Mwanza City) Although, Mwanza is the fourth smallest region in terms of dry land area, it has the population of 2,942,148 according to 2002 National



Population and Housing Census, the population of the region is now estimated to be 3.5 million people (Msekela, 2008).

According to Mwanza region commissioner Mwanza is connected to central mainland by a trunk road to Shinyanga and Nzega then branches to Tabora to the south and Singida, Dodoma and Dar es Salaam to the South East. Some parts of these roads are tarmac and some parts are earth/gravel/earth roads are impassible. Regional, district and feeder roads dominate the internal network. Table 2.1 shows the length of the roads in each district as per year 2002.

**Table 2.1: Length of road Network by Type of Road Surface by District in Mwanza Region\***

No	District	TYPE OF SURFACE			
		Tarmac	Gravel	Earth	Total
1.	Magu	92	157.3	694.6	943.9
2.	Ukerewe	-	48.2	241	289.2
3.	Geita	-	214.6	1,386.4	1,601.0
4.	Sengerema	-	177	586	703.0
5.	Kwimba	35	130	617	782.0
6.	Misungwi	54	102	458	614.0
7.	Mwanza City	14	94.7	475.3	584.0
<b>Total</b>		<b>195</b>	<b>863.8</b>	<b>4,458.3</b>	<b>5,517.1</b>

\*Data based in 2002

Source: Msekela, (2008)

The table shows that only 3.5% of the total lengths of roads in Mwanza Region are tarmac whereby graveled roads carry only 15.7% and the rest (Earth) carries 80.8%, as the time goes on the length of road assumed to be increased as well as population because

economic activities will increase. Road lengths and population of Mwanza region implies the more the demand of transport services in which motorcycles are among the tools for provision of transport services because roads are accessible. This implies that the number of motorcycles will continue as a result the need of training of motorcyclists will increase. Also the gravel and earth road have more length than tarmac road therefore most of cars do not use these roads but motorcycles can reach get accessibility to these kind of road.

### **2.3.2 Current Legislative on Motorcycle**

According to the law, Government Notice No. 144 published on 2/04/2010 The Transport Licensing (Motor Cycles and Tricycles) Regulations, 2010, Part III, Application for Road Service License. Section 4 (1) “No person shall operate for hire or reward a motor cycle or tricycle without a valid road service license”. And section 5 state that “an application for a road service license shall be made in a prescribed form set out in the first schedule to these Regulations together with: (g) a certified copy of the rider’s license and recent photograph”. On the other hand, The Road Traffic Act, 1973 Part III section 19.-(1) state that “No person shall drive any class of motor vehicle, on a road unless he is the holder of a valid driving license or a valid learner riding license issued to him in respect of such class of motor vehicle”. In addition to that section 21.-(1) state that “The Registrar may, upon the application of a learners rider in the prescribed form accompanied by the prescribed fee and, in the case of an application for a license to drive a motor vehicle other than a motor-cycle, upon being satisfied that he has made arrangements for receiving instructions in driving from a driving school or a competent and duly licensed driver, issue the applicant with a learners riding license in the prescribed form authorizing him to drive while under the personal supervision of his instructor except that a motor-cycle may be driven solo”. Therefore the law is open on the provision of driving license,

that it is must to acquire training from recognized driving schools for license application. There are different things to be assessed during the test by traffic police, but they can be grouped into two categorization factors such as; theory and practical. In theory there are rules and regulation for road safety and road signs in which there are rules concerning (page 68 of Transport Licensing Act). And in practical there are riding skills such as use of brakes, maneuver, horn, indicators, and motorcyclist behavior. The motorcyclist needs to pass the test so as to obtain the license.

Road traffic act section 168 and its regulations, under subsection number 114 'Act Supp'. No. 18 in government gazette No. 42 of date 11/02/2005 and No. 143 of date 02/04/2010 there will be fourteen classes of driving licenses. But this study focus to class A which is applicable for the motorcycles with capacity of 125 cc or weight of 230 kg and above with or without side vehicle. Most of motorcycles used for commercial purposes in Mwanza have capacity of 125 cc and 150 cc. Even though there are sections of laws in the Traffic Act, but still people ride motorcycles without training. Motorcyclists may have license but not training due to carelessness of regulatory authorities concerning with the relevance issues.

### **2.3.3 Historical Background of Bodaboda in Mwanza Region**

According to chairman of Mwanza motorcyclists union, 2009 people started to use motorcycles to carry passengers since 2002/2003 in Tanzania, but the operation was done silently and illegally. During that time motorcycles were imported in Tanzania through Mtukula border via Kagera region to Mwanza region, on the other side motorcycles imported in Mbeya from Zambia through Tunduma. In Mwanza the business of carrying passengers by using motorcycles continued to the year 2007. Government by using police army decided to interfere and trying to stop them by using different means such as road to

road patrol, street to street patrol, even though it was difficult to understand what person uses motorcycle for commercial purpose and who does not. The exercise of stopping them was difficult, this was noticed when the number of motorcycles increased in 2008. Many people used motorcycles as the source of income and cheapest means of transport to pillion passengers Makoye, 2009. Therefore the conflict brought a big challenge to commercial motorcyclists, as a results accidents increased. Accidents were caused intentionally by tax and minibus (Daladala) drivers by crashing motorcycles intentionally because they were afraid to lose income they used to generate before the increase of the number of motorcycles.

According to the Sumatra's Public Affairs Manager, Mr David Mziray, in his speech on March 2009, the parliament of the United Republic of Tanzania amended the Transport Licensing Act of 1973, where the motorcycles and tricycles were allowed to be one of the means of public transportation (Dora, 2011). Commercial motorcycles (Bodaboda) are used in Mwanza and other region of Tanzania as means of transport for people and cargos. Bodaboda transport services are a Ugandan innovation that has grown from small beginnings in the 1960s in the border region with Kenya (Malmberg-Calvo, 1994).

## **2.4 Impact of Training on Motorcyclist Competence**

Competence of the motorcyclist in riding motorcycle is a combination of several factors such competence of the trainer, good training curriculum as well as the attitude of the motorcyclists themselves as indicated below

### **2.4.1 Driving Instructor Competences**

CIESA report on standard for driving instructors, 2009 stated the competence of the instructor as described in the table 2.4. These competences should be assessed at the beginning even before the person starts the training on driver instructor. The person to

qualify as a driving instructor which is the same as the riding instructor should possess the personal competences, change and development skills, professional ethics, and communication skills, teaching skills, knowledge of the sector and underpinning knowledge

**Table 2.2: Driving Instructor Set of Specification**

<b>Competence</b>	<b>Explanation</b>
<i>1. Personal competences</i>	Desirable characteristics such as calmness, patience and an ability to multi-task
<i>2. Change &amp; development Skills</i>	Ability to learn and develop (new teaching methods, technology, etc), self-awareness
<i>3. Professional ethics</i>	Positive road safety attitudes, respect for individuals, the environment, society and the Law
<i>4. Communication skills</i>	Interpersonal skills, ability to establish the appropriate relationship for learning (with learner driver)
<i>5. Teaching skills</i>	Goal-setting, lesson planning, basic & advanced teaching methods, motivational techniques and assessment skills
<i>6. Knowledge of the sector</i>	Knowledge and understanding of the driver training curriculum, driving test guidelines, highway code, driving school administration and supporting organizations in the road safety field
<i>7. Underpinning knowledge</i>	Traffic in society, driving psychology (particularly for young, novice drivers), vehicle Technology

*Source: CIESA Report on Standard for Driving Instructors, 2009*

### 2.4.2 Qualification as a Motorcycle Instructor

Qualification of motorcycle instructor in Portugal as recommended by CIESA report 2009 is described by table 2.5. Topics which should be studied by the candidate of the motorcycle instructor course as recommended by CIESA report are traffic safety of motorcyclists, handling of the motorcycle, motorcycle structure and motorcyclist equipment and special characteristics of motorcycle training time and contents of the topic are also explained in the table.

**Table 2.3: Qualification as a Motorcycle Instructor**

**Module: Motorcycle training 80 hours (h)**

Teaching topic	Scope	Implementation method (for instance)
Traffic safety of motorcyclists	10 hrs	Getting acquainted with statistics and case studies and analysis in classroom and in small groups.
Handling of the motorcycle	10 hrs	Practicing and performing handling tasks. Driving practice on motorcycle (requires previous experience).
Motorcycle structure and motorcyclist equipment	30 hrs	Getting acquainted with the technical features of the motorcycle and especially the active and passive safety of the motorist: classroom teaching.
Special characteristics of motorcycle training	30 hrs	Practical teaching exercises with the motorcycle

*Source: CIESA report on standard for driving instructors, 2009*

### **2.4.3 Training Curriculum**

New Hampshire Motorcycle Rider Training Program in USA is applicable to both those who are interested of becoming motorcyclists and those who are already motorcyclists but want to improve their skills. Courses offered based on a curriculum developed by the motorcycle safety foundation and it is used in most states.

The curriculum contains The Basic Rider Course which is an introductory course which intended for new riders with little or no experience. Students will learn about different types of motorcycles, their controls, how they operate and will begin developing and practicing the mental and motor skills necessary for safe riding. The BRC combines classroom instruction with on-cycle riding practice. Class times vary, but students will spend a minimum of 5 hours in the classroom and ten (10) hours riding. All riding exercises are conducted at slow speeds on a protected range. The skills taught during the course include: rider and motorcycle preparation, defensive riding strategies, riding in a straight line, cornering, breaking, shifting, clutch-throttle control, and basic crash avoidance techniques. Students take a written evaluation and a riding evaluation as part of the course. Students who complete the course and pass the evaluations receive a completion card that will waive the motorcycle skills test given at the DMV for a motorcycle endorsement for up to one year. Motorcycles and helmets are provided, but students are responsible for providing the following protective clothing: eye protection, gloves, boots that cover the ankles, sturdy pants and a jacket.

The Intermediate Rider Course is a follow-up course for students who have taken the Basic Rider Course within the past year. The course provides an opportunity for more riding practice and a re-test for students who did not pass the Basic Rider Course the first time. The Experienced Rider Course is intended for riders with a minimum of one year and/or 1,000 miles riding experience, who want to further hone their riding skills. Riders

in this course use their own motorcycles. The Intermediate Rider Course (IRC) is a one day refresher course and is a continuation of the Basic Rider Course. The IRC is designed for riders who have completed a Basic Rider Course within the past year and who want more practice on the motorcycle. There is no classroom portion in the IRC, the entire class is spent riding on the motorcycles. Students take a riding evaluation as part of the course. Students who complete the course and pass the riding evaluation receive a completion card which will waive the motorcycle skills test given at the DMV for a motorcycle endorsement for up to one year. Motorcycles and helmets are provided, but students are responsible for providing the following protective clothing: eye protection, gloves, boots that cover the ankles, sturdy pants and a jacket.

The Experienced Rider Course (ERC) is a one day course designed for riders who have a motorcycle endorsement and at least one year of recent motorcycle experience. Students use their own registered, state-inspected motorcycles for range exercises. Students are responsible for providing the following protective clothing: eye protection, gloves, boots that cover the ankles, sturdy pants, a jacket and a helmet. The ERC provides an intensive hands-on approach to motorcycle rider training. The course focuses on a variety of crash avoidance maneuvers, control at low speed, cornering finesse and limited space maneuvers. This course is a great refresher to start the season. Students who complete the course and pass the riding evaluation receive a completion card which could potentially decrease insurance.

Northwest driving school in Portland provides training to motorcyclist following the curriculum with intensive 40+ hour class which develop coordination, balance, skill and confidence, enabling a rider to ride with the safety and efficiency enjoyed by police motor officers. The key components of the class include: clutch, throttle and brake control combined with proper head and eye placement. Students are immersed in braking



techniques, defensive driving, curve negotiation, street riding and precision riding through specially designed cone patterns that require locked turns along with radical changes of direction in tight places. Course overview of the Northwest driving school is as follow: In day one, the introduction of the basic motor operational skills provided in which introduction and beginning application of coordinated use of the throttle, clutch, and brake for low speed motor control are taught(gray area), Introduction of looking where you want to go as the key to controlling motor direction (Head/eye coordination), and introduction of the 7 elements of braking that enable a rider to stop comfortably using the front and rear brakes without locking either brake and remain fully in control of the motorcycle while stopping (Efficient braking). In day two the practice of basic operational skills continue in which students demonstrate improved gray area control (Gray area), Students demonstrate improved head/eye placement (Head/eye coordination), Students demonstrate the ability to apply the 7 elements of effective braking to effectively stop the motorcycle (Aggressive braking). In day three, the practice of precision motor control and aggressive braking, introduce at-speed counter steering continue in which student demonstrates a solid grasp of gray area control of the motorcycle (Gray area).

The student demonstrates proper head eye placement during all exercises (Head/eye coordination). The student demonstrates continued improvement by increasing speed during the braking exercise (Aggressive braking). And the student demonstrates a solid understanding of the concept of counter steering (Counter steering). And in day four, final work on precision motor control, aggressive braking and counter steering; introduction of the look-lock-lean exercise and complete riding exam in which student demonstrates a solid grasp of gray area control of the motorcycle using while performing proficiency exercises (Gray area).the student demonstrates proper head eye placement

during all exercises, including braking, counter steering, proficiency and curb pullouts (Head/eye coordination) The student demonstrates the ability to make multiple stops within the stop-box (Aggressive braking. The student demonstrates a solid understanding of the concept of counter steering and can complete the counter steering exercise (Counter steering). The student demonstrates highly refined motorcycle control by demonstrating their ability to make figure 8s with the motorcycle steering at full lock (Look-lock-lean exercise). And students will demonstrate their skills by completing a four part riding exam; completing a 13 pattern proficiency course, demonstrate proper braking and escape technique, execute counter steering for obstacle avoidance and control the motorcycle at full lock and transition

#### **2.4.4 Attitude of Motorcyclists towards Training**

The safety of motorcyclists is affected by their attitudes toward skill development, their ability to practice risk management, and the influence of their riding peers regarding such issues as protective apparel and riding while impaired. The attitudes of motorcyclists toward safety vary greatly. Some motorcyclists emphasize safety in motorcycling activities while others give it little thought. Many riders appear to believe in the efficacy of rider training programs to enhance their skill development and increase their safety while riding. The prevalent rider training program in the United States teaches skill development, risk management, the use of protective apparel, and the danger of riding while impaired. However, many riders remain untrained and therefore may miss important safety messages. (National Agenda for Motorcycle Safety, 2010)

Recent work in Australia has addressed the issues of motorcyclists' hazard perception and risk recognition (Hazard Perception for Motorcycle Riders Conference, 1999). However, there is little in-depth information that specifically addresses the effects of peer

pressure, attitudes toward safety, and the individual rider's ability to recognize risk and react appropriately. Knowledge of rider peer pressure and motorcyclists' attitudes toward safety appears to be primarily anecdotal. Peer pressure has been studied extensively regarding teenagers and drug/ tobacco/alcohol use. The National Highway Traffic Safety Administration (NHTSA) has conducted focus groups directed at alcohol-involved riders that may provide insight into rider behavior and one component of risk recognition (Syner, 2000).

NAMS wanted to know how to provide motorcyclists with resources that help them form more positive attitudes. To do so, need to know how they form their attitudes about safety-related issues. What sources of information and opinion have the most influence on motorcyclists? How can we harness them to help provide a more effective safety message to positively influence behavior? How can we prevent inaccurate information from becoming widely distributed and repeated? What are the best methods of providing ready access to accurate, practical information about safety-related issues and encouraging safer behavior?

NAMS stated that in order to understanding how motorcyclists develop their attitudes about safety issues requires research on knowing how motorcyclists form certain attitudes and why they may reject relevant information. The most likely methods for learning about motorcyclists' attitudes concerning safety are focus groups, crash research and surveys. Such tools should be designed to explore motorcyclists' attitudes and decision-making processes concerning safety and related issues. This research should include crash-involved riders and representative cross sections of motorcyclists to define attitudes among the population-at-risk. And the most prevalent sources of influence should be used to help motorcyclists make informed decisions regarding safety issues and to encourage safe behavior. As we identify the most influential sources of positive, accurate

information and influence, they should be given additional support. (National Agenda for Motorcycle Safety, 2010)

## **2.5 Empirical Analysis of Relevant Studies**

Katina et al (2010), assert that riding a motorcycle (a two-wheeled vehicle that is powered by a motor and has no pedals) is associated with a high risk of fatal crashes, particularly in new riders. Motorcycle rider training has therefore been suggested as an important means of reducing the number of crashes, and the severity of injuries. Objective of the author was to quantify the effectiveness of pre- and post-license motorcycle rider training on the reduction of traffic offences, traffic crash involvement, injuries and deaths of motorcycle riders. In the selection criteria the author included all relevant intervention studies such as randomized and non- randomized controlled trials, interrupted time-series and observational studies such as cohort and case-control studies. In the study two review authors independently analyzed data about the study population, study design and methods, interventions and outcome measures as well as data quality from each included study, and compared the findings.

We resolved differences by discussion with a third review author. We reviewed 23 studies: three randomized trials, two non-randomized trials, 14 cohort studies and four case-control studies. Five examined mandatory pre-license training, 14 assessed non-mandatory training, three of the case-control studies assessed 'any' type of rider training, and one case-control study assessed mandatory pre-license training and non-mandatory training. The types of assessed rider training varied in duration and content. Most studies suffered from serious methodological weaknesses. Most studies were non-randomized and controlled poorly for confounders. Most studies also suffered from detection bias due to the poor use of outcome measurement tools such as the sole reliance upon police records or self-reported data. Small sample sizes and short follow up time after training

were also common. The findings suggested that mandatory pre-license training may be an impediment to completing a motorcycle licensing process, possibly indirectly reducing crashes through a reduction in exposure. It is not clear if training (or what type) reduces the risk of crashes, injuries or offences in motorcyclists, and a best rider training practice can therefore not be recommended. As some type of rider training is likely to be necessary to teach motorcyclists to ride a motorcycle safely, rigorous research is needed.

Minju (2011), assert that, the motorcycle population in Kenya has increased in the recent past with the motorcycle numbers on Kenyan roads rising to 350,000 units from 30,000 units in seven years (2003 – 2009). The number of fatal road accidents has increased with the increase of motorcycles because riders are not properly trained. Motorcyclists can avoid some of the crashes with proper training. The research work analyzed and assessed the safety and training needs that the motorcyclists require in order to reduce accidents on Kenyan roads. The study applied descriptive research to obtain precise information concerning the motorcyclists in Nairobi and five of the suburb towns with a population of one hundred motorcycles each. A simple random sampling procedure was adopted to select the sample of eighty motorcyclists in each locality after every ten minutes as they arrive at their work stations. Data was collected using questionnaires containing both structured and unstructured questions. The data was then transcribed and analyzed using Microsoft excels to generate statistically inferable information. It was found out that the motorcyclists are male aged 16-25years, with good basic education, who are self employed with half being married. They are not ignorant of the statutory requirements governing the operations of the motorcycles and they seem to be aware of all the rules. It was established that less than ten per cent have the requisite riding license. Although fifty six per cent indicated that they had actually attended a riding school, only fifty five per cent of those who attended sat for the government test and only fifty three per cent of the

ones who sat for the test passed. This shows that only fifteen per cent of the motorcyclists have passed the government test with only six per cent being able to produce their licenses. The author concludes that motorcycle accidents are caused by lack of training of the motorcyclists.

James et al (1989), in his article which describes a study conducted in British Columbia to ascertain whether the British Columbia Safety Council's 37-hour motorcycle safety training program has a measurable impact on accidents. Two matched groups of motorcycle riders were compared from 1979 through 1984. Members of one group passed the Safety Council's training course during 1979 and received their Class 6 (motorcycle) license after completing the course. Members of the other group also obtained their Class 6 license in 1979, but did not receive any formal motorcycle training. Comparisons of the driving records of formally trained and informally trained (henceforth untrained) riders reveal that there were observable differences in the frequency and severity of accidents between the two groups. Trained riders tend to have fewer accidents of all kinds (all motor vehicle accidents combined), fewer motorcycle accidents, and less severe motorcycle accidents. Although these differences were not large in a statistical sense, they suggest that when care is taken to carefully match trained and untrained riders, training is associated with a reduction in accidents. Given that motorcycle accidents tend to be much more severe than automobile accidents, the evidence from the study supports the use of training as a means of reducing the human and material costs of motorcycle accidents.

Ofonime (2010), in his investigation on effect of safety education on knowledge of and compliance with road safety signs among commercial motorcyclists in Uyo, Southern Nigeria stated that compliance with road safety signs is important in the reduction of motorcycle accidents. The aim of his study was to implement health education

intervention and assess its impact on the knowledge of and compliance with road safety signs among commercial motorcyclists in Uyo, Southern Nigeria.

This was an intervention study among motorcyclists in Uyo, Southern Nigeria, with a control group from a similar town. The instrument of data collection was a semi-structured interviewer administered questionnaire. Subjects were selected through multistage sampling method. Baseline data on compliance to road safety signs was collected from both groups. Motorcyclists in the intervention group were given education on the importance of compliance to road safety signs. Data was subsequently collected from both groups 3 months post intervention and analyzed using the Statistical Package for the Social Sciences (SPSS) version 11.

A total of 200 respondents participated in the study, 100 from each group. Following intervention, respondents with good knowledge score increased from 21% at baseline to 82% at 3 months post intervention in the intervention group ( $p<0.05$ ) and from 19% to 21% in the control group. Compliance score in the intervention group increased from 15% to 70% ( $p<0.05$ ) and from 12% to 18% in the control group.

A significant increase in compliance to road safety signs was recorded among motorcyclists in the intervention group after safety education. All motorcyclists should therefore be given education on road safety signs as this will improve compliance and lead to safer road use among them.

## **2.6 Review of Supporting Theories**

### **2.6.1 Kirkpatrick's Four-Level Training Evaluation Model**

Donald Kirkpatrick, Professor Emeritus at the University of Wisconsin and past President of the American Society for Training and Development (ASTD), first published his Four-Level Training Evaluation Model in 1959, in the US Training and Development Journal.

The model was then updated in 1975, and again in 1994, when he published his best-known work, "Evaluating Training Programs." The four levels are: Reaction, Learning, Behavior and Results. Starting with Level 1 which is reaction, measures how trainees (the people being trained), reacted to the training. Obviously, it need them to feel that the training was a valuable experience, and need them to feel good about the instructor, the topic, the material, its presentation, and the venue. It's important to measure reaction, because it helps to understand how well the training was received by audience. It also helps to improve the training for future trainees, including identifying important areas or topics that are missing from the training. Level 2: which is learning measure what trainees have learned. How much has their knowledge increased as a result of the training? When the training session is planned, hopefully started with a list of specific learning objectives, these should be the starting point for measurement. Kirkpatrick said that learning can be measured in different ways depending on these objectives, and depending on whether the interested in changes to knowledge, skills, or attitude. It's important to measure this, because knowing what trainees are learning and what they aren't will help to improve future training. Level 3: Behavior evaluates how far trainees have changed their behavior, based on the training they received. Specifically, this looks at how trainees apply the information. Kirkpatrick said that it's important to realize that behavior can only change if conditions are favorable. For instance, imagine measurement at the first two Kirkpatrick levels has skipped and, when looking at group's behavior, determine that no behavior change has taken place. Therefore, assume that trainees



haven't learned anything and that the training was ineffective. However, just because behavior hasn't changed, it doesn't mean that trainees haven't learned anything. Perhaps their boss won't let them apply new knowledge. Or, maybe they've learned everything you taught, but they have no desire to apply the knowledge themselves. Level 4: Results, analyze the final results of the training. This includes outcomes that organization has determined to be good for business, good for the employees, or good for the bottom line.

### **2.6.2 The application of the Kirkpatrick's Four-Level Training Evaluation Model to the study**

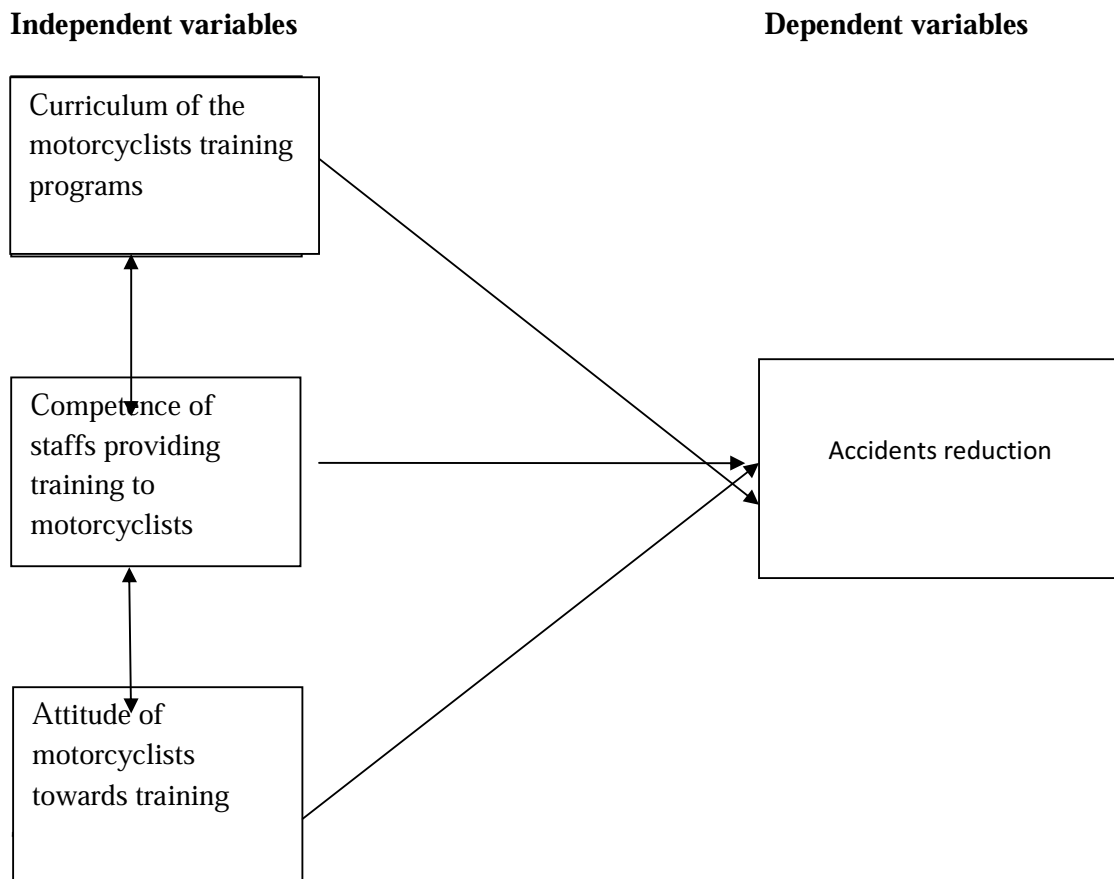
Level 1: Reaction, the trainees (motorcyclists) at this level must react well to the training. Ways of making them to have positive attitudes towards training should be introduced. Competent instructor and best curriculum which include important areas to study should be applied. Level 2: Learning, as a result of good and relevant curriculum and competent instructor the knowledge, skills and positive attitude of motorcyclists will be good to trainees (motorcyclists). The aim is to make sure that knowledge, skills and positive attitude is passing to trainees (motorcyclist). Level 3: Behavior at this level, trainees need to change their behavior, based on the training they received. Specifically, this looks at how trainees apply the knowledge obtained during training. The training is considered received by motorcyclist if their behavior changes. Level 4: Results, expected outcome is minimum accidents from trainees (motorcyclists). Which is the aim of the study of reducing accidents as resulted from trainees (motorcyclist).

Good curriculum of the motorcyclists training will determine the extent of accidents reduction. If curriculum contains adequate duration and required contents of the training then accidents will be reduced in large extent. Competence of staffs providing training to motorcyclists will determine the level of accidents reduction, because the more the competent of staffs the more good training to motorcyclists then accidents reduction is

high. Attitude of motorcyclists towards training will have impact in reducing road accident. Positive attitude towards training lead to more willing to train as a result of accidents reduction. A comprehensive training program must be there so as to reduce accidents.

## 2.7 Conceptual Framework

This study will be carried out with the following conceptual framework as a guide.



**Figure 2.1 Conceptual Framework**

*Source: Author, 2013*

Whenever good and accredited motorcyclists' curriculum followed by competent instructors the results are effective motorcyclists with high potential of reducing road accidents. Positive attitudes of motorcyclists make the competence of instructors to be effective when teaching these motorcyclists as well as effectiveness of curriculum can be

seen. Competent motorcyclists will follow good curriculum and hence outcome of effectiveness to trained motorcyclists hence accidents reduction.

## **CHAPTER THREE**

### **3.0 METHODOLOGY**

#### **3.1 Overview**

The study based into the assessment of the effectiveness of motorcyclists training in reducing road accidents, and to address this issue the author proposed to carry out this study. Within this chapter the researcher has outline and discuss the most appropriate methods of design, Research area and population , Methods of statistical analysis, Source of Data, Methods of Data Collection , Tools for Data Collection and Sample design.

#### **3.2 Research Design**

According to Krishnaswami 2003, research design is a logical and systematic plan prepared for directing a research study. It specifies the objective of the study, the methodology and techniques to be adopted for achieving the objectives. It constitutes the blue print for the collection, measurement and analysis of data (Phillips 1999)

The study based on descriptive research which focused on finding the facts concerning the effectiveness motorcyclists training on reducing road accidents. According to Krishnaswami, 2003 descriptive research is a fact finding investigation with adequate interpretation with the advantage of being valuable in providing facts needed for planning social action programmes. And data were collected by using one or more appropriate methods, in this study interviews, questionnaires and observation were used.

#### **3.3. Area of the Research**

All seven districts of Mwanza region which are Ilemela, Nyamagana, Misungwi, Ukerewe, Kwimba, Magu and Sengerema were included in this study, because motorcycles are found in all these districts also Mwanza was selected because it has large number of commercial motorcycles as appendix x shows, and one of the regions in which the business of Bodaboda started. Motorcyclists are found in all districts of Mwanza in rural areas and urban as surveyed by the researcher.

### **3.4 Survey Population**

A population is a group of individual's persons, objects, or items from which samples are taken for measurement (Webster, 1985). In this study the sample was extracted from Commercial Motorcyclists of Mwanza region, police officers from traffic department and teachers/instructors from driving schools from Mwanza region. The population proposed because in one way or another involved in motorcycle business. Commercial motorcyclists are the one driving these motorcycles, police officers are responsible for enforcing the law and make sure that rules are followed by motorcyclists, while teachers/instructor from driving schools provide training to motorcyclists.

### **3.5 Sampling Design**

Sample design is a plan for drawing a sample from a population. It involves sample, sample size and sampling procedure (Krishnaswami, 2003). In this study the sample design was as follows;

#### **3.5.1 Sample Size**

The sample size was obtained by using the Sample Size Calculator as it is presented as a public service of Creative Research Systems survey software. It is used to determine how many people you need to interview or to question in order to get results that reflect the target population as precisely as needed see appendix. The calculator has four sections such as confidence interval, confidence level, population and sample size. The total number of motorcyclists was filled in population gap which was 7959, then confidence level of 5 was filled and 95% confidence level was filled. The results were 367 (sample size Therefore from the sample size calculator the sample size calculated was 367 commercial motorcyclists where data obtained by Questionnaires. On the other side four instructors from four driving schools providing training to motorcyclists were selected as well as four police officers from traffic department were included in sample where

interview method of data collection was used to collect data from them. According to the number of the workers of their corresponding departments in their institutions they were enough to provide the information required and to represent others. From each driving schools there were 2 instructors dealing with motorcyclists

### **3.5.2 Sampling Procedures**

According to Patton (1990), Sampling is the act, process, or technique of selecting a suitable sample, or a representative part of a population for the purpose of determining parameters or characteristics of the whole population. Sampling is very important because it reduces the time and cost of research studies and it saves labour that the researcher can collect data alone or with few assistants. In this study both class of sampling methods were used such as probability or random sampling and non probability or non sampling.

According to Patton, (1990) A random sample allows a known probability that each elementary unit is to be chosen. For this reason, it is sometimes referred to as a probability sampling. In this study a simple random procedure was used to obtain 367 commercial motorcyclists from 230 parking areas of commercial motorcyclists of all seven districts in Mwanza region such as Ilemela, Nyamagana, Misungwi, Ukerewe, Kwimba, Magu and Sengerema. Seven boxes equal to the total number of districts and each box represented one district and contained names of parking areas of respective district. Names of all parking areas were written on the piece of papers then dropped into the district's box of their respective districts. From each box (from each district) 10 parking areas were picked.

The same procedures were applied in finding motorcyclists to respond to the Questionnaires where cards with number given to motorcyclists from each selected

parking area from each district and the same numbers written on the piece of papers then dropped into the box of their respective selected parking area then 5 numbers picked at randomly from each box (parking area) as the sample, which resulted to total number of 350 motorcyclists. Therefore the remaining 17 motorcyclists also were obtained by simple random procedure from two parking points with more than 30 motorcyclists each. Where cards with number given to motorcyclists from each selected parking area from each district and the same numbers written on the piece of papers then dropped into the box of their respective selected parking area then 10 numbers picked at randomly from each box (parking area) one and then 7 numbers picked at randomly from each box (parking areas) two.

Judgment sampling is a non probability sampling; it is a method involves selection of cases which we judge as the most appropriate ones for the given study. It based on the judgment of the researcher or some expert (Krishnaswami 2003). This technique used to obtain four instructors from four driving schools providing training to motorcyclists as well as four police officers from traffic department of the police force Mwanza.

### **3.6 Source of Data**

According to (Krishnaswami 2003) the search for answers to research questions calls for collection of data. Data are facts, figures and other relevant materials, past and present, serving as bases for study and analysis. Source of data may be classified into primary sources and secondary sources. In this study both class of source of data were used.

#### **3.6.1 Primary Sources**

Are original sources from which the researcher directly collects data that have not been previously collected (Krishnaswami, 2003). "A primary source is a document, image, or artifact that provides evidence about the past. It is an original document created contemporaneously with the event under discussion. A direct quote from such a

document is classified as a primary source. A secondary source is a book, article, film, or museum that displays primary sources selectively in order to interpret the past." Robert C. Williams, *The Historian's Toolbox: A Student's Guide to the Theory and Craft of History*, p.58. In this study the author collected data from various sources including institutions, authorities, and individual people on the issues concerning the effectiveness of motorcyclists training on reducing road accidents also articles found in scholarly journals that do not discuss or evaluate someone else's original research. Primary sources provide the raw data for the study research. Primary sources offered the author a direct link to the events concerning the trend of motorcyclists training in reducing road accidents in the past.

### **3.6.2 Secondary Sources**

Secondary sources are sources of obtaining data which have been collected and compiled for another purpose. The secondary sources consist of readily available compendia and already compiled statistical statements and reports whose data may be used by researchers for their studies (Krishnaswami 2003). In this study the author has decided to use different reports, books, journals, other research written and news paper on the issue concerning the effectiveness of motorcyclists training in reducing road accidents as the source of secondary data. The author has used secondary source because wider geographical area and longer reference period was to be covered without much cost, it broadens the data base from which scientific generalizations can be made, and it enabled the author to verify the findings based on primary data. Secondary source helped to put the subject in context also important for helping to position author's argument within the scholarly conversation on the topic. Libraries, websites and institutions where secondary sources were found.



### **3.7 Methods of Data Collection**

#### **3.7.1 Interviewing**

It may be defined as a two- way systematic conversation between an investigator and an informant, initiated for obtaining information relevant to a specific study (Krishnaswami, 2003). There are different types of interviewing method but the author decided to use Personal interview. Personal interview method requires a person known as the interviewer asking questions generally in a face-to-face contact to the other person or persons. At times the interviewee may also ask certain questions and the interviewer responds to these, but usually the interviewer initiates the interview and collects the information (Kothari 2004).

In this study the author decided to use this method to collect data from police officers (traffic department) and instructors from driving schools providing training to commercial motorcyclists. This method was suitable for few sample respondents. According to (Krishnaswami, 2003) personal interviewing has some advantages which are also the reasons of the researcher has considered when deciding to use the method such as, the method has secured the depth and detail of information, the percentage of responses was maximized and the quality of information was received. Interviewer was able to note the conditions of the interview situation and adopt appropriate approaches to overcome such problems as the respondent's unwillingness, incorrect understanding of question, suspicion etc. And also interview was flexible and adaptable to individual situation.

#### **3.7.2 Questionnaires**

This method was used to collect data from commercial motorcyclists. And in case of this method alternative method of delivering questionnaires was used such as personal

delivery. According to (Krishnaswami 2003), Personal Delivery is done by the researcher or his assistant may deliver the questionnaires to the potential respondents with a request to complete them at their convenience. Often referred as the self-administered questionnaire method, it combines the advantages of persona interview and the mail survey. Questionnaires delivered to respondents so as to obtain data concerning the effectiveness of motorcyclists training in reducing road accidents. It is not always the case to collect information at the time the researcher meet respondent but by using Mail survey the respondents were able to complete the questionnaires at their conveniences. The author has used this because respondent complete the questionnaires at their conveniences. Also the number of respondents was high. However this method of data collection has accompanied by the problem of low response rate, but the author has accompanied questionnaire with cover letter in a pleasant style so as to attract the attention of the respondent and request them to cooperate. The structure of a covering letter is shown in appendix

### **3.7.3 Observation**

The information is sought by way of investigator's own direct observation without asking from the respondent (Kothari, 2004). In this study the researcher was able to get information for his own concerning availability and condition of motorcyclists training equipment and tools. A non participant observation was employed where the observer was stand apart and records what was required.

### **3.8 Data Collection Instruments**

Questionnaire and Interview schedules with structured question were the tool which employed by the method of data collection to that was used in this study. According to (Krishnaswami, 2003), they are both contain a set of questions logically related to a problem under study, aim at eliciting responses from the respondents, in this case the

content, response structure, the wordings of questions, question sequence, etc are the same for all respondents. The differences between these tools questionnaire a schedule is filled out by the interviewer while interview schedule filled by the respondents. The interview schedule used open ended question (see appendix C and D) while questionnaire as used in this study contains closed questions of dichotomous, multiple choice and declarative ones (see appendix A and B). The author has considered five situational factors to make the decision on using close ended question as stated by (Kahn et al 1957), they are; Objectives of the interview, Respondent's level of information about the topic, Respondent's thinking through the topic, Ease of communication and motivation of respondent to talk and The investigators awareness of the above factors.

Closed questions were structured ones with two or more alternative responses from which respondent have to choose. They contained standardize answers and they were simple to administer and easy to compile and analyze. As the alternative responses were designed with reference to the requirements of the study the changes of securing relevant answers were better. However, closed questions were suffered from certain disadvantages, that different respondent interpret the same words and statements differently. The author solved the problem by interpreting the questions to respondents.

The interview schedule for police officers contained general questions. There was also interview schedule for motorcyclist's instructors. Observations schedule as a tool was used as well in this study, where tools, equipments and other facilities for training motorcyclists were evaluated to check the availability and conditions of driving schools. Recording was done by grading against each phenomenon. (See appendix E).

### **3.9 Data Processing and Data Analysis**

According to (Krishnaswami 2003) Data processing is an intermediary stage of work between data collection and data analysis. It involves classification and summarization of

data in order to make them enable to analysis. The author employed operation of data processing such editing, classification and coding and tabulation. Editing is a process of checking to detect and correct errors and omissions. Editing was done at two stages: first at the field work stage where after data collection the interviewer reviewed the schedule and questionnaires to complete abbreviated responses, rewrite illegible responses and correct omissions, and second at office where all completed schedules thoroughly checked in the office for completeness, accuracy and uniformity. Data was edited, classified and coded so as to make data amenable for analysis. The code book was prepared by the author so as to make the action of data analysis easy. Code book was used to identify a specific item of variable and the code number assigned to each category of that item.

“The purpose of data analysis is to organize, provide structure to, and elicit meaning from research data” (Polit and Beck 2008). The Statistical Package for Social Sciences (SPSS) version 16.0 for Windows used by the researcher to process the raw data obtained from the interview and questionnaire. SPSS was able to handle large amount of data and enabled the researcher to get the exact and most accurate results in which frequencies were targeted.

Descriptive statistics refer to statistical techniques and methods designed to reduce sets of data and make interpretation easier (IIE, 2012). The study employed this method for analysis because allowed the researcher to present the data in a more meaningful way which allowed simpler interpretation.

## **CHAPTER FOUR**

### **4.0 FINDINGS AND DISCUSSION**

#### **4.1 Introduction**

This chapter describes the analysis and findings of the data those were collected from respondents, who were commercial motorcyclists, police officers and driving schools instructors. In case of motorcyclists all seven districts of Mwanza region such as Ilemela, Nyamagana, Misungwi, Ukerewe, Kwimba, Magu and Sengerema were included and both trained and non trained commercial motorcyclists were involved. And in case of police officers and driving schools instructors only Nyamagana and Ilemela district

involved because the head quarters of these driving schools found as well as headquarter of police force found.

#### 4.2 Respondents

367 Questionnaires which is equal to the number of commercial motorcyclists sample were distributed and all were filled by respondents. But among respondents other were trained motorcyclists and others were non trained motorcyclists (motorcyclists with informal training). 97 respondents which is 26.4% of the total sample were motorcyclists with formal training while 270 respondents which is 73.6% were motorcyclists without formal training.

**Table 4.1 Response to Distributed Questionnaires from Trained Motorcyclists**

Description	Number	Percent (%)
Responded motorcyclists	97	100
Non responded motorcyclists	0	0
Total	97	100

*Source: Field Data (2013)*

Table 4.1 above shows that all distributed questionnaires were filled by respondents who were trained commercial motorcyclists which is 100%.

##### 4.2.1 Characteristics of Trained Motorcyclists

**Table 4.2 Gender of the Respondents in the Study**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	97	100.0	100.0	100.0
Female	0	0	0	0

*Source: Field Data (2013)*

From the trained motorcyclist's questionnaires, Table 4.2 above, all 97 respondents which is 100% were males. This also implies that the industry is occupied by males.

**Table 4.3 Marital Status of the Respondents in the Study**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	40	41.2	42.6	42.6
	Single	48	49.5	51.1	93.6
	Widower	6	6.2	6.4	100.0
	Total	94	96.9	100.0	
Missing	99	3	3.1		
Total		97	100.0		

*Source: Field Data (2013)*

From the trained motorcyclist's questionnaires, Results from the table 4.3 shows that 41.2% of motorcyclists are married, 49.5% are single while widowers are 6.2%. While 3.1% motorcyclists did not respond to this question

**Table 4.4 Age of the Respondents in the Study**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	16-25 years old	21	21.6	22.3	22.3
	26-25 years old	64	66.0	68.1	90.4
	36-45 years old	9	9.3	9.6	100.0
	Total	94	96.9	100.0	
Missing	99	3	3.1		

**Table 4.4 Age of the Respondents in the Study**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	16-25 years old	21	21.6	22.3	22.3
	26-25 years old	64	66.0	68.1	90.4
	36-45 years old	9	9.3	9.6	100.0
	Total	94	96.9	100.0	
Missing	99	3	3.1		
Total		97	100.0		

*Source: Field Data (2013)*

Most of the trained motorcyclists aged 26-35 years old which is 66% as a result shows on table 4.4 above, this age class has capability of learning and understanding while 21.6% aged 16-25 years old and 9.3% aged 36-45. 3.1% did not respond to this Question

**Table 4.5 Education of the Respondents in the Study**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primary School	80	82.5	82.5	82.5
	Secondary School	17	17.5	17.5	100.0
	Total	97	100.0	100.0	

*Source: Field Data (2013)*

From the table 4.5 the result shows that most of motorcyclists have primary education which is 82.5% while only 17.5% hold secondary education. This implies that they need special treatment during training so as to make them understand the subjects



**Table 4.6 Respondent's Ownership of the Motorcycle in the Study**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Self Ownership	22	22.7	23.4	23.4
Employed	65	67.0	69.1	92.6
Day Worker	7	7.2	7.4	100.0
Total	94	96.9	100.0	
Missing 99	3	3.1		
Total	97	100.0		

*Field Data (2013)*

From the trained motorcyclist's questionnaires, Table 4.6 above shows that 67% motorcyclists are employed, 22.7% hold their own motorcycles, and 7.2% are day worker while 3.1% did not respond to this question.

**Table 4.7 Experience of the Respondents of Riding Motorcycle in the Study**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1 Year	13	13.4	13.4	13.4
2 Years	37	38.1	38.1	51.5
3 and above years	47	48.5	48.5	100.0
Total	97	100.0	100.0	

*Source: Field Data (2013)*

48.5% of motorcyclists have three and above year's experience, 13.4% have one year experience while 38.1% have two years experience. Experience plus training can effectively reduce road accidents by these motorcyclists, from the table 4.7

#### 4.2.2 Characteristics of Non Trained Motorcyclists

**Tables 4.8 Gender of the Respondents in the Study**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	270	100.0	100.0	100.0

*Source: Field Data (2013)*

From non- trained motorcyclist's questionnaires, Table 4.8, all respondents were males which equal to 100% of non trained motorcyclists.

**Tables 4.9 Marital Status of the Respondents in the Study**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Married	91	33.7	33.7	33.7
Single	157	58.1	58.1	91.9
Widower	22	8.1	8.1	100.0
Total	270	100.0	100.0	

*Source: Field Data (2013)*

From non- trained motorcyclist's questionnaires, 58.1% of respondents were single which is the largest percent of the non trained motorcyclists as the table 4.9 shows, 33.7% were married while 8.1% were widowers.

**Tables 4.10 Age of the Respondents in the Study**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Below 16 years old	2	0.7	0.7	0.7
16-25 years old	150	55.6	55.6	56.3
26-35 years old	66	24.4	24.4	80.7
36-45 years old	52	19.3	19.3	100.0
Total	270	100.0	100.0	

*Source: Field Data (2013)*

From non- trained motorcyclist's questionnaires, Table 4.10, respondents below 16 years old were 0.7%, 16-25 years old were 55.6% and 26-35 years old were 24.4% while 36-45 years old were 19.3%.

**Tables 4.11 Education of the Respondents in the Study**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Primary School	193	71.5	73.4	73.4
Secondary School	30	11.1	11.4	84.8
Illiterate	40	14.8	15.2	100.0
Total	263	97.4	100.0	
Missing 99	7	2.6		
Total	270	100.0		

*Source: Field Data (2013)*

Most of respondents have attained primary educations which is 71.5% as the table 4.11 shows. 11.1% attended secondary school and 14.8% are illiterate, while 2.6% were not responded to this section.

**Tables 4.12 Ownership of the Motorcycles of the Respondents**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Self Ownership	86	31.9	32.7	32.7
Employed	177	65.6	67.3	100.0
Total	263	97.4	100.0	
Missing 99	7	2.6		
Total	270	100.0		

*Source: Field Data (2013)*

31.9% hold their own motorcycles, 65.6% which is the largest population are employed while 2.6% respondents did not respond to this part. (From the table 4.12 above)

**Tables 4.13 Experience of the Respondents in Riding Motorcycles**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1 Year	45	16.7	16.7	16.7
2 Years	68	25.2	25.2	41.9
3 and above years	157	58.1	58.1	100.0
Total	270	100.0	100.0	

*Source: Field Data (2013)*

From non- trained motorcyclist's questionnaires, Small number of motorcyclists has got 1 year experience this is 16.7% as the table 4.13 shows. 25.2% have 2 years experience while most of them that is 58.1 have three and above year's experience.

### 4.3 Is the Motorcyclist Training Programs Use Curriculum with Accredited Time and Contents?

The question intended to assess the effectiveness of the curriculum used by different driving schools for motorcyclists training course as to whether the curriculum conforms and meet standard of curriculum for motorcyclists training as well as to check if there is standard curriculum for training motorcyclists in Tanzania

From the interview, Igansi, Lake, Victoria driving schools said that there is no any standardize curriculum for motorcyclists training in Tanzania so that every institution provides training to motorcyclists by using their own curriculum, and the curriculum which is used by them originated from VETA, because VETA started to provide training to motorcyclists before any driving school in Mwanza. Also the instructor from VETA said the something that there is no standard curriculum for motorcyclists training after introduction of the course they have decided to create their own curriculum

**Table 4.14 Frequency of Attendance for the Training by Motorcyclists**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	95	97.9	100.0	100.0
Missing 99	2	2.1		
Total	97	100.0		

*Source: Field Data (2013)*

From the trained motorcyclist's questionnaires, Table 4.14 above, 97.9% of the motorcyclists attended for the training only one time, while 2.1% didn't answer the question. No one has attended twice or more for the training. This implies that the current curriculum doesn't offer courses for the motorcyclists who are already got training in order to improve their skills. When compared with New Hampshire Motorcycle Rider Training Program in USA, it is applicable to both those who are interested of becoming

motorcyclists and those who are already motorcyclists but want to improve their skills. Courses offered based on a curriculum developed by the motorcycle safety foundation and it is used in most of the states. The curriculum contains The Basic Rider Course which is an introductory course which intended for new riders with little or no experience. Students will learn about different types of motorcycles, their controls, how they operate and will begin developing and practicing the mental and motor skills necessary for safe riding.

The Intermediate Rider Course is a follow-up course for students who have taken the Basic Rider Course within the past year. The course provides an opportunity for more riding practice and a re-test for students who did not pass the Basic Rider Course the first time. The Experienced Rider Course is intended for riders with a minimum of one year and/or 1,000 miles riding experience, who want to further hone their riding skills. The Experienced Rider Course (ERC) is a one day course designed for riders who have a motorcycle endorsement and at least one year of recent motorcycle experience. The course focuses on a variety of crash avoidance maneuvers, control at low speed, cornering finesse and limited space maneuvers.

And according James, 2011 the number of accidents in states of USA including Hampshire is decreasing every year. This implies that the curriculum is effective as the results there is decrease of these accidents every year

#### **4.15 Education about Protective Equipments**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	97	100.0	100.0	100.0

*Source: Field Data (2013)*

From the trained motorcyclist's questionnaires, Table 4.15 above 100% respondents taught about protective equipments. This is one of the areas to be taught to motorcyclists

so as to decrease accidents, in Mwanza almost all motorcyclists who have passed to driving school for riding course have taught about protective equipments. This similar to other countries driving school's curriculums like Portland in which protective equipment knowledge provided to motorcyclists as well as Hampshire state in USA where Motorcycles and helmets are provided, but students are responsible for providing the following protective clothing: eye protection, gloves, boots that cover the ankles, sturdy pants and a jacket

**Tables 4.16 Knowledge Concerning Protective Equipment**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	235	87.0	90.7	90.7
	No	24	8.9	9.3	100.0
	Total	259	95.9	100.0	
Missing	99	11	4.1		
Total		270	100.0		

*Source: Field Data (2013)*

The same question asked to non trained motorcyclists concerning the knowledge about protective equipments. From the table 4.16, 87.0% non trained motorcyclists have knowledge concerning protective equipments, 8.9% responded no while 4.1% didn't responded to the question. Non- trained motorcyclists have knowledge concern protective equipments even though they did go for formal training however most of them do not use protective equipments when riding as table 4.18 shows

**Table 4.17 Use Safety Equipment When Riding Motorcycle**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Usually	80	82.5	82.5	82.5
Not usually	17	17.5	17.5	100.0
Total	97	100.0	100.0	

*Source: Field Data (2013)*

From the trained motorcyclist's questionnaires, the use of safety equipments when riding motorcycle is highly done by most of trained motorcyclists as trained in class. From the table 4.17 shows that 82.5% of trained motorcyclist usually use safety equipments when riding but 17.5% of the trained motorcyclists not usually use the safety equipment. Therefore even though motorcyclists trained on the use of protective equipments but not all of them are using protective equipments as the results serious injuries are there in case accidents happens

**Tables 4.18 The Use Safety Equipment when Riding Motorcycle**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	204	7.4	77.3	77.3
Not usually	40	14.8	15.2	92.4
No	20	75.6	7.6	100.0
Total	264	97.8	100.0	
Missing 99	6	2.2		
Total	270	100.0		

*Source: Field Data (2013)*

From non- trained motorcyclist's questionnaires, Table 4.18, 75.6% non- trained motorcyclists do not use protective equipments when riding motorcycles even though



they have not got formal training, 14.8% use protective equipment sometimes, 7.4% use protective equipment while 2.2% didn't responded to this question. The use of protective equipments such as groves, hard shoes reduces accidents

**Table 4.19 Days for Theory Training**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1-2 Days	10	10.3	10.3	10.3
3-4 Days	84	86.6	86.6	96.9
5-6 Days	3	3.1	3.1	100.0
Total	97	100.0	100.0	

*Source: Field Data (2013)*

From the trained motorcyclist's questionnaires, Table 4.19 shows that most of the curriculum used by various institutions has 3-4 days for theory training. It is 86.6% of motorcyclists trained in 3-4 days for theory. 10.3% trained in 1-2 days and only 3.1% trained in 5-6 days. In USA where there is decrease of accidents the training is about four days according to James, 2011 as well as driving schools in Portland use the same duration for theory training. Therefore the rate of accidents in Mwanza increases as the result of other factors and not duration for theory training.

**Table 4.20 Days for Practical Training**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1-2 Days	89	91.8	91.8	91.8
3-4 Days	8	8.2	8.2	100.0
Total	97	100.0	100.0	

*Source: Field Data (2013)*

From the trained motorcyclist's questionnaires, Table 4.20 above shows that most of the trained motorcyclists have use 1-2 days for practical training, it was 91.8% of motorcyclists. While 3-4 days for practice was 8.2%.

From the interview, Interviewees from Igansi, Lake and Victoria driving schools as well as VETA said that training program for the motorcyclists carried at institutions in terms of teaching sessions, theory covers three days while practical training covers two days

This is common to other countries also such as USA where four days used for practical training. Therefore this duration for practical training cannot be the source of accidents because it matches with duration of other countries where there is minimum rate of accidents

**Tables 4.21 Days Used for Motorcycle's Informal Training for Non- Trained Motorcyclists**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1-2 days	38	14.1	14.2	14.2
3-4 days	183	67.8	68.5	82.8
5-6 days	24	8.9	9.0	91.8
Above 6	22	8.1	8.2	100.0
Total	267	98.9	100.0	
Missing 99	3	1.1		
Total	270	100.0		

*Source: Field Data (2013)*

From non- trained motorcyclist's questionnaires, 14.1% of the non trained motorcyclists used 1-2 days to train as the table 4.21 shows, 67.8% used 3-4 days to train, 8.9% used 5-6 days, 8.1 used above six days while 1.1 didn't responded to the question. Most non-

trained motorcyclists use 3-4 days to train in formal and this is usually practical. And the qualification of their trainers is not known as the results they are characterized by large number of accidents

**Table 4.22 An Assessment Test After The Course**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	90	92.8	92.8	92.8
No	7	7.2	7.2	100.0
Total	97	100.0	100.0	

*Source: Field Data (2013)*

From the trained motorcyclist's questionnaires, Majority of motorcyclist trained with the curriculum which needs them to sit for assessment test after the completion of their training course. 92.8% of the motorcyclists did the assessment test after their training but only 7.2% didn't. From the table 4.22, This is what done by other countries like USA where assessment test is done to evaluate clutch, throttle and brake control combined with proper head and eye placement, braking techniques, defensive driving, curve negotiation, street riding and precision riding through specially designed cone patterns that require locked turns along with radical changes of direction in tight places. Due to evaluation of these factors accidents is low to these countries. Therefore in Tanzania accidents are still increasing may be due to improper assessment

From the interview, all interviewees (instructors) from Igansi, lake, Victoria driving schools and VETA said that it's easy to know that the trainee who has completed the course is ready for riding motorcycle on road with other traffic by considering their pass mark of their assessment test.

The interview with police officers, all interviewees (police officers) said that its true police force (Traffic department) provides an assessment test to motorcyclists after the completion of their course from various driving schools. And what exactly assessed are;

Understanding of motorcycles' control devices and systems, Carrying of essential documents when riding a motorcycle ( such as insurance sticker, motorcycle license, registration card, valid driving license etc, Use of safe devices and clothes, Ride defensively, Knowledge on traffic laws and regulations, Road sign and marks, Knowledge on safety riding and health, Application of safe braking, Steer properly, Shift gear properly, leaning and turning, Avoidance of road obstacle, Ride at night, and after assessment test they can be awarded driving license for the candidate who pass the test.

This shows that trained motorcyclists obtained after training are competent as the results accidents reduced. Non- trained motorcyclists after their formal training they don't do an assessment test which shows that they don't consider their competence to drive on road with other traffics, this is attested by large number of accidents they have got since started to ride motorcycles

**Table 4.23 Number of Accidents before Obtains Training**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid One	12	12.4	12.4	12.4
Two	9	9.3	9.3	21.6
Above Three	67	69.1	69.1	90.7
None	9	9.3	9.3	100.0
Total	97	100.0	100.0	

*Source: Field Data (2013)*

From the trained motorcyclist's questionnaires, 69.1% of the trained motorcyclists who responded to questionnaires have got accidents more than three times before obtained formal training. 12.4% have got only one accident, 9.3 % have got two accidents while only 9.3% have never got accidents (from table 4.23)

**Table 4.24 Number of Accidents after Obtains Training**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid One	61	62.9	62.9	62.9
Two	7	7.2	7.2	70.1
Three	5	5.2	5.2	75.3
Above Three	3	3.1	3.1	78.4
None	21	21.6	21.6	100.0
Total	97	100.0	100.0	

*Source: Field Data (2013)*

From the trained motorcyclist's questionnaires, Majority of trained motorcyclists have not get accidents after their formal training. From the table 4.24, the result shows that 21.6% have not get accident, 62.9% have got only one accident, 7.2% have got only two accidents, 5.2 % have got three accidents while 3.1% have got above three accidents. The effectiveness of training can be seen due to the fact that the number of accidents of motorcyclists have decreased after obtain training.

**Tables 4.25 Number of Accidents Non- Trained Motorcyclists Involved Since Started to Ride Motorcycle**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid One	23	8.5	8.9	8.9
Two	34	12.6	13.1	22.0
Three	50	18.5	19.3	41.3
Above Three	152	56.3	58.7	100.0
Total	259	95.9	100.0	
Missig 99	11	4.1		
Total	270	100.0		

*Source: Field Data (2013)*

From non- trained motorcyclist's questionnaires, 56.3% responded to the question that they have got more than three accidents, 8.5% one accident, 12.6% two accidents, 18.5% three accidents while 4.1 didn't respond to the question.(from the table 4.25).

Therefore the numbers of accidents tend to be high to non- trained motorcyclists unlike to trained motorcyclists. This implies that the training is effective in reducing accidents

**Table 4.26 Education on Road Signs and Rules**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	97	100.0	100.0	100.0

*Source: Field Data (2013)*

From the trained motorcyclist's questionnaires, 100% respondents trained concerning road signs and rules. These shows that trained motorcyclists are aware of road signs and rules (table 4.26). It is must for the user of the road with other traffic to understand road signs and rules as described in chapter two of the literature review. Results show that training concerning road signs and rules is provided by driving schools to motorcyclists.

**Table 4.27 General Aptitude Test for Admission**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	97	100.0	100.0	100.0

*Source: Field Data (2013)*

From trained motorcyclist's questionnaires, No one has done an aptitude test before joining the institution for the training. This is 100% of the respondents (from the table 4.27). Curriculums of the other countries USA contain aptitude test that the candidate/expected trainee should pass before starting the course. This seems to be a problem in Mwanza driving schools because there is no motorcyclists who has done that before starting the course

Instructor from Igansi driving school with three years experience said that it is easy for them to recognize the expected trainee is capable to sit for the motorcyclist training program because they receive only motorcyclists with experience (the one already know how to ride motorcycle). Instructors from Lake and Victoria driving schools with said that they don't have any criteria for recognizing the capability of the expected trainee to sit for the motorcyclist training program but what they do is to accept them as long they are not disable in such a way can't ride motorcycle and train them but assess them by an assessment test. While instructor from VETA with four years experience said that they have two categories of trainees that is experienced one and new beginners, for experienced motorcyclists it easy because they go there with the capability of riding

motorcycle but with lack of other knowledge such as maneuver, road rules and regulation etc. And for beginners they consider if they can speak one of the two languages either Kiswahili or English and she/he has not got any disability which can hinder the trainee to catch what has been taught and he /she should be physically fit.

This affect the effectiveness of the training because sometimes illiteracy people can be trained and then fail their assessment test which is done at the end of the training. This can lead to corruption and at the end of the day they qualify while they are not competent.

**Table 4.28 Language Spoken by Motorcyclists**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Swahili	79	81.4	81.4	81.4
Both	18	18.6	18.6	100.0
Total	97	100.0	100.0	

*Source: Field Data (2013)*

From trained motorcyclist's questionnaires, Table 4.28 shows that language spoken by most of the motorcyclists is Kiswahili. 81.4% as indicated by the table speak Kiswahili while only 18.6% speak both languages (English and Kiswahili)

**Table 4.29 Language Used as the Medium of Communication for the Trainees**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid English	1	1.0	1.0	1.0
Swahili	88	90.7	90.7	91.8
Both	8	8.2	8.2	100.0
Total	97	100.0	100.0	

*Source: Field Data (2013)*



From trained motorcyclist's questionnaires, Curriculum of most institutions seem to cope with this majority of motorcyclists who speak mostly Kiswahili. From the table 4.29 the results were 90.7% while 1.0% trainees got their training by English language and the 8.2% trained by using both languages (Kiswahili and English). Trainees understand the language as well as subjects and therefore decrease the number of accidents

From the interview with driving schools instructors; According to interviewees from Igansi, Lake and Victoria driving schools as well as VETA, the language used for the training is well-matched with the language which is mostly spoken by your trainees, this language is Kiswahili. So what they do is to translate the language from English to Kiswahili because most of the trainees speak our national language which is Kiswahili also most of the have got primary level education. So they are not good in English language

With the use of the language which every trainee can understand make the effectiveness of the training. Motorcyclists understand what they have taught and hence reduce accidents by implementing the knowledge obtained from the training

#### **4.4. Are the Staffs Providing Training to Motorcyclists Posses Required Qualification?**

The aim of this question was to assess the competence of motorcyclist's instructors from these institutions providing training to motorcyclists

**Table 4.30. The Instructor Wearing of Protective Equipment during Practical Training**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	81	83.5	83.5	83.5
No	16	16.5	16.5	100.0
Total	97	100.0	100.0	

*Source: Field Data (2013)*

From trained motorcyclist's questionnaires, According to table 4.30 results, 83.5% respondents agreed that their instructors were using/ wear protective equipments during the training. This implies they are good example to their trainees, shows their trainee on what to they are suppose to do. Only 16.5% were not wearing these protective equipments.

**Table 4.31 The Instructor Ability to Show Demonstration on Riding Motorcycle**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	84	86.6	86.6	86.6
No	13	13.4	13.4	100.0
Total	97	100.0	100.0	

*Source: Field Data (2013)*

From trained motorcyclist's questionnaires, 86.6% of the respondents said that their instructors were able to show demonstration during their training. But 13.4% said that their instructors were not able to show demonstration to them during training. This implies that most of the motorcyclist's instructors are capable and have got training on riding motorcycles (from the table 4.31).

Those instructors who fail to show demonstration to their trainees means they are not qualified to train. This attested by few numbers of accidents by trained motorcyclists who completed their course but without competence.

**Table 4.32 Instructor Provides Enrichment/Remediation**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	90	92.8	92.8	92.8
No	7	7.2	7.2	100.0
Total	97	100.0	100.0	

*Source: Field Data (2013)*

From trained motorcyclist's questionnaires, 92.8% of the motorcyclists responded to this question and said that its true that their instructors were providing enrichment during the training course but few of them which is 7.2% said their instructors were not providing remediation to them (from the table 4.32). According to CIESA report of 2009 change and development skills is one of the factors for competence of the instructor (new teaching methods and methodology). Instructors seem to be competent and qualified. This is attested by few numbers of accidents by trained motorcyclists

**Table 4.33 Instructor with the Use Appropriate Verbal and Non Verbal Communication**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	83	85.6	85.6	85.6
No	14	14.4	14.4	100.0
Total	97	100.0	100.0	

*Source: Field Data (2013)*

From trained motorcyclist's questionnaires, the use of verbal and non verbal communication was good to most of the motorcyclists because 85.6% of them responded to usually answer from the table 4.33 but only 14.4% said that this was not usually to their instructors. According to (CIESA report of 2009), Communication skills by instructor are one of the factors to make them competent and qualified. Therefore from the results above most of instructors are qualified to train motorcyclists. As the results most of the trainees are competent and have got few accidents after the training course

**Table 4.34 The Instructor Frequency of Attendance in Class**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Usually	86	88.7	88.7	88.7
Not usually	11	11.3	11.3	100.0
Total	97	100.0	100.0	

*Source: Field Data (2013)*

From non- trained motorcyclist's questionnaires, Table 4.34 motorcyclists said that their instructors were attending to class in time, 88.7% said this, but 11.3% of the motorcyclists said that was not usually to their instructors during their training. CIESA report 2009 provides the factors for the competent of the instructor such as personal competence in which the attendance to class in time everyday is important. Due to this the instructor will be able to accomplish what is supposed to be accomplished. Therefore trainees become competent and reduce accidents as these trained motorcyclists have got few accidents after training.

**Table 4.35 The Instructor Absent in Some of Sessions**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	20	20.6	20.6	20.6
No	77	79.4	79.4	100.0
Total	97	100.0	100.0	

*Source: Field Data (2013)*

From trained motorcyclist's questionnaires, 20.6% of the trained motorcyclists as shown in table 4.35 said that their instructors were absent in some sessions during training but 79.4% said that their instructors were not subjected to that circumstances. Personal competence is important for the competence of the instructor, therefore the instructor should not miss the session. From the table 4.34 instructors were usually available to class in time as the results trained motorcyclists have got few accidents after their training.

#### **4.5. Are there Positive Attitudes among Motorcyclists towards Training?**

From the questionnaires to trained motorcyclists, the response to the statement was as follows

**Table 4.36 Necessity of Training for Motorcycle Riding Safety**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strong Disagree	95	97.9	97.9	97.9
Disagree	2	2.1	2.1	100.0
Total	97	100.0	100.0	

*Source: Field Data (2013)*

From trained motorcyclist's questionnaires, 97.9% of the motorcyclists responses fall under the category of strong disagrees as the respond to the statement which says that

training is not necessary for motorcycle riding safety while 2.1% fall under disagree category (From table 4.36). This implies the motorcyclists know the importance of training in reducing road accidents this is also shown by the results of minimum number of accidents after they have got training.

In order to make sure that the motorcyclists ride on road with other traffic has got training, all interviewees (police officers) said that, they catch whenever and wherever they suspect them that they don't have driving license which is the main identity of motorcyclists that they have got training. And if it is true that they don't have license Motorcyclists with their motorcycles retained by police in lock up rooms and given one condition in order to be set free by police. The condition is they allow motorcyclists to go for training while holding their motorcycles and after they finish training they come with certificates of completion for their motorcycles.

Two police officers said that apart from driving schools course for motorcyclists training, Police force especially traffic department have nothing to do with motorcyclists for their train. But the other two interviewees said that apart from driving schools course for motorcyclists training, Traffic department organizes the crash program of one week for motorcyclists who are already know how to drive but do not have knowledge on road signs, rule, motorcycles system. This is done during the safety week driving. Traffic department corroborate with driving schools to provide the training to these motorcyclists.

**Table 4.37 Necessity of Training to Experienced Riders**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strong Disagree	97	100.0	100.0	100.0

*Source: Field Data (2013)*

From trained motorcyclist's questionnaires, table 4.37 Training is not necessary for experienced riders, this statement was strong disagreed by all motorcyclists who responded to this questionnaire which is 100%. This implies that training is necessary to all motorcyclists and those wish to be motorcyclists. In countries like USA the curriculum is there also for trained motorcyclists this is to make sure that accidents are minimized to large extent

**Tables 4.38 The Efficacy of Rider Training Programs Enhances Skill Development and Increase Safety While Riding**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Agree	7	7.2	7.2	7.2
Strongly Agree	90	92.8	92.8	100.0
Total	97	100.0	100.0	

*Source: Field Data (2013)*

From trained motorcyclist's questionnaires, The efficacy of rider training programs enhances skill development and increase safety while riding. 92.8% of the motorcyclists strongly agreed to this statement while 7.2% agreed to the statement (From table 4.38). Because they have already got the training, this implies that training is necessary in reducing road accidents and also it is effective because accidents after training to these trained motorcyclists has decreased.

**Tables 4.39 Training is Necessary for Young People Only**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Agree	8	8.2	8.2	8.2
Strongly Agree	89	91.8	91.8	100.0
Total	97	100.0	100.0	

*Source: Field Data (2013)*

From trained motorcyclist's questionnaires, Training is necessary for young people. This statement was strongly agreed by 91.8% of the motorcyclists as the table 4.39 shows while 8.2% agreed with the statement. This implies that even young people should get training so as to reduce accidents. This is also attesting that the training is effective.

**Tables 4.40 Training is more Necessary when Riding in the City than Outside-the City Areas**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strong Disagree	81	83.5	83.5	83.5
Disagree	9	9.3	9.3	92.8
Neither Agree nor Disagree	3	3.1	3.1	95.9
Agree	4	4.1	4.1	100.0
Total	97	100.0	100.0	

*Source: Field Data (2013)*

From trained motorcyclist's questionnaires, Training is more necessary when riding in the city than outside-the city areas. 83.5% of the motorcyclists strongly disagreed to this



statement as the table 4.40 shows. 93% motorcyclists disagreed to this statement, 3.1% neither agreed nor disagreed and 4.1% agreed to this statement. Motorcyclists have positive attitude towards training that it should be provided to both areas in the city as well as outside-the city. This also implies that the training is effective because who are saying these are trained motorcyclists

**Tables 4.41 Expenses of Acquiring Training from Driving Schools**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strong Disagree	80	82.5	82.5	82.5
Disagree	8	8.2	8.2	90.7
Neither Agree nor Disagree	5	5.2	5.2	95.9
Agree	4	4.1	4.1	100.0
Total	97	100.0	100.0	

*Source: Field Data (2013)*

From trained motorcyclist's questionnaires, It is very expensive to acquire training from driving schools. The statement strong disagreed by respondents for 82.5% as table 4.41 shows. 8.2% motorcyclists disagreed to this statement, 5.2% neither agreed no disagreed while 4.1% agreed. This implies good attitude of motorcyclists towards training. Therefore this attitude lead to effectiveness of training and hence reduction of the accidents

From the interview the fees structure for the training course at Igansi Driving School is 30000 for experienced rider. The fees structure for the training course at Lake Driving School is 30,000 for experienced rider and 50,000 for beginners. The fees structure for

the training course at Victoria Driving School is 30,000 for experienced rider and 50,000 for beginners. And the fees structure for the training course VETA is 30,000 for experienced rider and 50,000 for beginners.

The situation leads to negative attitudes to trained and non- trained motorcyclists towards training. Most of non- trained motorcyclists use below 20000 tshs for obtaining informal training while trained motorcyclists who have paid this amount complained to the amount that is high

**Tables 4.42 Duration of Acquiring Training**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Neither Agree nor Disagree	3	3.1	3.1	3.1
Agree	5	5.2	5.2	8.2
Strongly Agree	89	91.8	91.8	100.0
Total	97	100.0	100.0	

*Source: Field Data (2013)*

From trained motorcyclist's questionnaires, It is a long duration to acquire training, most of educated motorcyclists that 91.8% strongly agreed to the statement, 5.2 agreed while 3.1 neither agreed nor disagreed (from the table 4.42). This implies that there is negative attitude towards duration of training even though according to CIESA report the duration which is used is applicable to other countries.

**Tables 4.43 Procedures to Join Driving Schools for Motorcycle Training**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strong Disagree	62	63.9	63.9	63.9
Disagree	22	22.7	22.7	86.6
Neither Agree nor Disagree	7	7.2	7.2	93.8
Agree	6	6.2	6.2	100.0
Total	97	100.0	100.0	

Source: Field Data (2013)

From trained motorcyclist's questionnaires, 63.9% motorcyclists strongly disagreed to the statement which says that there are many procedures to join driving schools for motorcycle training as the table 4.43 shows. 22.7% disagreed, 7.2% neither agreed nor disagreed and 6.2% agreed to the statement.

**Tables 4.44 Equipments in Institutions Providing Training such as Motorcycles**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Neither Agree nor Disagree	3	3.1	3.1	3.1
Agree	18	18.6	18.6	21.6
Strongly Agree	76	78.4	78.4	100.0
Total	97	100.0	100.0	

Source: Field Data (2013)

From trained motorcyclist's questionnaires, Most of institutions providing training do not have equipments such as motorcycles. The statement supported with the motorcyclists where by 78.4% motorcyclists strongly agree as the table 4.44 shows, 18.6% agreed to the statement while 3.1% neither agreed nor disagreed. This is hinder the effectiveness of the training to motorcyclists

From the interview the interviewees (instructors) from Igansi, Lake and Victoria driving schools as well as VETA said that they do have enough training tools and equipments for theory training but for practical training they lack motorcycles and ground.

All four observation tools were filled for the purpose of assessing the availability and condition of tools and equipments of driving schools. The researcher found that training environment such as availability of classrooms for these institutions was satisfactory except for VETA the situation is very good. Shortage of motorcycles for practice is there for all institutions. The condition of those motorcycles seems to be very good while chairs and table availability was good to all institutions. Open space for practical training is poor to all institutions that mean they don't have special space for practical training except VETA have their own ground for practical training. On the other side teaching materials such as books, writing boards, writing equipments considered to be good to all institutions. Protective equipments considered to be poor. While condition of classroom looks good

The mentioned tools, equipments, teaching materials, classes etc facilitate the training to motorcyclists. Therefore the quality of those mentioned above lead to effectiveness of the training to motorcyclists. It is difficult for the beginners who do not hold their own motorcycles to go for training hence they can find other means of obtaining training such as go for informal training and at the end of the day they operate motorcycles without competence as the results accidents increases

All Interviewees (police officers) said that factors considered by police to allow driving schools provide training to motorcyclists are; cars with good condition, classes in good condition for theory training, open space for practical training, other teaching equipments such as books and qualified instructors, these are some of the factors considered to allow driving schools to operate. Mentioned factors considered to bring effectiveness to motorcyclists and hence reducing accidents

## CHAPTER FIVE

### 5.0 CONCLUSION AND RECOMMENDATIONS

#### 5.1 Conclusion

The conclusion based on answering the research questions which were used in this study.

It is true that the motorcyclist training programs curriculum contain accredited time and contents, however there is no standard curriculum for motorcyclists training in Tanzania but those curriculum used by different driving schools contain accredited time for courses including the entire time for the training course, days for theory training and days for practical training are standard and conform with those of other countries. On the other side, contents of the curriculums used by these driving schools are standard which are also used by other countries with low rate of accidents like USA. These contents are assessment test after the completion of the course to the trainee to examine what they have achieved during training and if they qualify to ride on road with other traffics. The curriculum indicates that knowledge and the use of the protective equipments, Understanding of motorcycles' control devices and systems, Carrying of essential documents when riding a motorcycle ( such as insurance sticker, motorcycle license, registration card, valid driving license etc), Use of safe devices and clothes, Ride defensively, Knowledge on traffic laws and regulations, Road sign and marks, Knowledge on safety riding and health, Application of safe braking, Steer properly, Shift gear properly, leaning and turning, Avoidance of road obstacle and Ride at night are included in the curriculum as the results number of accidents is low to trained motorcyclists. However these curriculums do not contain an aptitude test to people who want to join motorcycle training program.

It is true that most staffs providing training to motorcyclists posses require qualification. This attested by the good example shown by the such as wearing protective equipment

during practical training, their ability to demonstrate on riding motorcycles during practical training, provision of enrichment and remediation in class as well as in field. The use of appropriate verbal and non verbal communication to trainees which facilitate easy understanding and attendance to class in each and every session as well as in time.

Positive attitude of motorcyclists towards training is there especially to trained motorcyclists because most of them understand the importance of training. Training is necessary for motorcycle riding safety, training is necessary for experienced riders., the efficacy of rider training programs enhances skill development and increase safety while riding, training is necessary also for young people, Training is necessary when riding in the city as well as outside-the city areas. However they complained for tools, equipments and facilities for training as well as fees.

Therefore the effectiveness of the motorcyclists training program in reducing road accidents is there. This attested by low number of accidents to trained motorcyclist compared to large number of accidents to non trained motorcyclists due to the fact that, The use of motorcyclist training programs curriculum with accredited time and contents, the qualification of staffs providing training to motorcyclists which lead to positive attitudes among motorcyclists towards training are the reasons.

## **5.2 Recommendations**

### **5.2.1 Training institutions**

Training institutions in Tanzania should sit together to set standard curriculum for training these motorcyclists so as to increase the effectiveness of motorcyclists and to maintain standard in the whole country so as to reduce accidents to large extent. Institutions should find means of obtaining training facilities and equipments such as motorcycles for training and also grounds for practical training.

These training institutions establish aptitude test before admit motorcyclists for training so as to take those people with capability of understanding and riding motorcycles. Driving schools can reduce the fee for the training so as none motorcyclists can afford and instead of paying to unqualified instructors to pay to driving schools where competence can be achieved.

### **5.2.2 Police Force**

Police force should continue to make sure that the motorcyclists ride on road with other traffic got training, by arresting them whenever and wherever they suspect them that they don't have driving license which is the main identity of motorcyclists that they have got training. And if it is true that they don't have license Motorcyclists with their motorcycles retained by police in lock up rooms and given one condition in order to be sated free by police. That is to go for training while holding their motorcycles and after they finish training they come with certificates of completion for their motorcycles.

Also Traffic department should continue to organize the crash program of one week for motorcyclists who are already know how to drive but do not have knowledge on road signs, rule, motorcycles system. And police can establish driving school special to those motorcyclists caught by them

### **5.2.3 Government**

Government should provide fund to facilitate the training to non trained motorcyclists to go for the training to driving schools because many of them cannot afford to pay for their training. The government should also find means to make motorcyclists to know the importance of training by make sessions on TV and radios as well as seminars



### **5.3 Limitation for the Study**

The study covered only the three objectives which are; Assessment of motorcyclists training program curriculum, competence of motorcyclist's instructors and attitude of motorcyclists towards training. Also the study focused only to commercial motorcyclists, police officers, and motorcyclists' instructors, it didn't touch on other motor vehicle operators and other people using Bodaboda transport services like pillion passengers. Also the study focused only in Mwanza region and not other regions of Tanzania.

### **5.4 Areas for Further Studies**

This study has objectively focused on assessing the effectiveness of motorcyclists training program in reducing road accidents. With the specific objectives of assessing the motorcyclists training programs curriculum, assessing the competence of staffs providing training to motorcyclists and determining the attitude of motorcyclists towards training. The problem being the increase of road accidents involving motorcycles as a result of lack of training on road safety by motorcyclists.

There is a need for further explorative studies on the factors for positive attitude among motorcyclists towards training. The main objective here will be to find out which factors can lead the motorcyclists to go for training. Also examination of the protective equipments used by motorcyclists if meet international standards.

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**APPENDICES**

**Appendix “A”: Questionnaire**

**TO TRAINED COMMERCIAL MOTORCYCLISTS**

**OPEN UNIVERSITY OF TANZANIA (OUT)**

**FACULTY OF BUSINESS MANAGEMENT**

**Degree: Masters’ of Business Administration (Transport and Logistics)**

**Questionnaire**

Simon Peter P

P.O. Box 10625, Mwanza

Mob: +255 (0)752 888 993/ 685 902 626

Email: psp\_sha @yahoo.com

Location: City area (urban area) [ ☐ ] Outside-the city area (Peri-urban area) [ ☐ ]

Commercial Motorcycle parking point name\_\_\_\_\_

**Dear Respondent,**

**The Title of this Study is:**

**Assessment of the Effectiveness of Motorcyclists Training in Reducing Road  
Accidents in Tanzania (A Case of Mwanza)**

*The main objective of the research is to assess the effectiveness of motorcyclists training  
program in reducing road accidents.*

**Section A: Demographic Characteristics (please tick in the box)**

## 1. Gender

☐ Male☐ Female

## 2. Marital status

☐ Married☐ Single☐ Widow☐ Widower

## 3. Age

☐ Below 16 years old☐ 16- 25 years old☐ 26-35 years old☐ 36- 45 years old☐ Above 45 years old

## 4. Education

☐ Primary☐ Secondary☐ University☐ Vocational Training☐ Illiterate

## 5. Ownership of the motorcycle

☐ Self ownership☐ Employed☐ Day worker

6. For how long you have been riding motorcycle

☐ 1 Years

☐ 2 Years

☐ 3 Years and above

**Section B: Curriculum (Please tick in the box)**

Q.1. Did you attend any accredited riding school for motorcycle training?

☐ yes

☐ No

Q.2. How many times have attended for the training?

☐ 1

☐ 2

☐ 3 and above

Q.3. Have you taught about protective equipment during your training?

☐ yes

☐ No

Q.4. Do you use safety equipment when riding motorcycle?

☐ Usually

☐ Sometimes

☐ No

Q.5. How many days did you use for theory training during your motorcycle training?

☐ 1-2 days

☐ 3-4 days

☐ 5-6 days

☐ Above 6 days



Q.6. How many days did you use for practical training during your training?

☐ 1-2 days

☐ 3-4 days

☐ 5-6 days

☐ Above 6 days

Q.7. How many hours did you use in a day for theory training during your training?

☐ 1-2 hours

☐ 3-4 hours

☐ 5-6 hours

☐ Above 6 hours

Q.8. How many hours did you use in a day for practical training during your training?

☐ 1-2 hours

☐ 3-4 hours

☐ 5-6 hours

☐ Above 6 hours

Q.9. Did you do an assessment test after the course?

☐ yes

☐ No

Q.10. How many accidents have you got before obtains training?

☐ one

☐ two

☐ three

☐ above three

☐ None

Q.11. How many accidents have you got after training?

☐ one

☐ two

☐ three

☐ above three

☐ None

Q.12. Did you learn about road signs and rules?

☐ Yes

☐ No

Q.13. Do you do general aptitude test for admission?

☐ yes

☐ No

Q.14. What was the size of the class?

☐ below 10 trainees

☐ Between 10 and 30 trainees

☐ above 30 trainees

Q.15. What was the price for the training course?

☐ below 20,000 Tshs

☐ between 20,000 and 40,000

☐ above 40,000

Q.16. Which language do you speak?

☐ English

☐ Swahili

☐ Both

☐ None

Q.17. Which language was used as the medium of communication for the trainees?

☐ English

☐ Swahili

☐ Both

☐ None

**Section C: Competence of the motorcyclists' instructor**

Q.1. Was the Instructor trained you wearing protective equipment during practical training?

☐ yes

☐ no

Q.2. Was the instructor able to show you demonstration on riding motorcycle?

☐ yes

☐ no

Q.3. Did instructor provides enrichment/remediation?

☐ yes

☐ no

Q.4. Did instructor use appropriate verbal and non verbal communication

☐ Usually

☐ Not usually

Q.6. Was the instructor comes to class in time?

☐ Usually

☐ Not usually

Q.7. Was the instructor absent in some of sessions?

☐ yes

☐ no

### Section D: Attitudes towards training

Please choose an appropriate answer by putting a tick in the space provided.

- 0- Strongly disagree
- 1- Disagree
- 2- Neither agree nor disagree
- 3- Agree
- 4- Strongly agree

The following statements test the attitude of motorcyclists towards training.

		0	1	2	3	4
1.	Training is not necessary for motorcycle riding safety					
2.	Training is not necessary for experienced riders.					
3.	The efficacy of rider training programs enhances skill development and increase safety while riding.					
4.	Training is necessary for young people					
5.	Training is more necessary when riding in the city than outside-the city areas					
6.	It is very expensive to acquire training from driving schools					
7.	It is a long duration to acquire training					
8.	Training is necessary to obtain license					
9.	There are many procedures to join driving schools for motorcycle training					
10.	There is scarce of institutions provide motorcyclists training					
12.	Most of institutions providing training do not have equipments such as motorcycles.					

*I thank you for your corporation in completing this questionnaire*

**Appendix ‘‘B’’: Questionnaire**

**TO NON TRAINED COMMERCIAL MOTORCYCLISTS**

**OPEN UNIVERSITY OF TANZANIA (OUT)**

**FACULTY OF BUSINESS MANAGEMENT**

**Degree: Masters’ of Business Administration (Transport and Logistics)**

**Questionnaire**

Simon Peter P

P.O. Box 10625, Mwanza

Mob: +255 (0)752 888 993/ 685 902 626

Email: psp\_sha @yahoo.com

Location: City area (urban area) [ ] Outside-the city area (Peri-urban area) [ ]

Commercial Motorcycle parking point name\_\_\_\_\_

**Dear Respondent,**

**The Title of this Study is:**

**Assessment of the Effectiveness of Motorcyclists Training in Reducing Road  
Accidents in Tanzania (A Case of Mwanza)**

*The main objective of the research is to assess the effectiveness of motorcyclists training  
program in reducing road accidents.*

**Section A: Demographic Characteristics (please tick in the box)**

## 1. Gender

☐ Male☐ Female

## 2. Marital status

☐ Married☐ Single☐ Widow☐ Widower

## 3. Age

☐ Below 16 years old☐ 16- 25 years old☐ 26-35 years old☐ 36- 45 years old☐ Above 46 years old

## 4. Education

☐ Primary☐ Secondary☐ University☐ Vocational Training☐ Illiterate

## 5. Ownership of the motorcycle

☐ Self ownership☐ Employed☐ Day worker

6. For how long you have been riding motorcycle?

☐ 1-Year

☐ 2-Years

☐ 3 and above -Year

**Section B: Informal Training**

Qn.1. Where did you get training?

☐ friend

☐ Myself

Qn.2. Do you have knowledge concerning protective equipment?

☐ yes

☐ No

Qn.3. Do you use safety equipment when riding motorcycle?

☐ yes

☐ Not usually

☐ No

Qn.4. How many days did you use for your motorcycle training?

☐ 1-2 days

☐ 3-4 days

☐ 5-6 days

☐ Above 6 days

Qn.5. Did you incur any cost for the training?

☐ yes

☐ No

Qn.6. How much did you incur for the training?

☐ below 20,000 Tshs

☐ 20,000 and 40,000

☐ None

Qn.7. How many accidents were you involved since you started to ride motorcycle?

☐ one

☐ two

☐ three

☐ above three

*I thank you for your corporation in completing this questionnaire.*



**Appendix “C”: Interview Schedule**

**TO POLICE OFFICERS**

**OPEN UNIVERSITY OF TANZANIA (OUT)**

**FACULTY OF BUSINESS MANAGEMENT**

**Degree: Masters’ of Business Administration (Transport and Logistics)**

**Interview Schedule**

Simon Peter P

P.O. Box 10625, Mwanza

Mob: +255 (0)752 888 993/ 685 902 626

Email: psp\_sha @yahoo.com

Institution/Organization name: \_\_\_\_\_

**Dear Respondent,**

**The Title of this Study is:**

**Assessment of the Effectiveness of Motorcyclists Training in Reducing Road Accidents in Tanzania (A Case of Mwanza)**

*The main objective of the research is to assess the effectiveness of motorcyclists training program in reducing road accidents.*

**General Questions**

Qn.1. Apart from driving schools course for motorcyclists training, what else do you do

to provide training to motorcyclists?

.....

.....

Qn.2. How do you do to makes sure that the motorcyclists riding on road with other traffic have got training?

.....  
 .....

Qn.3. What factors do you consider to allow driving school provide training to motorcyclists?

.....  
 .....  
 .....

Qn.4. Do you provide an assessment test to motorcyclists after the completion of their course?

☐ Yes

☐ No

If yes from the question above, what do exactly do you assess?

.....  
 .....  
 ..... Do you

think lack of training to motorcyclists is the major cause of accidents involving motorcycles?

☐ Yes

☐ No

If yes from the question above, why do you think?

.....  
 .....  
 .....

Qn.5. There are about 8000 motorcyclists in Mwanza, about 2000 motorcyclists have got training and there are only four driving schools providing training out of eight schools, what is your opinion on that situation?

.....  
.....  
.....

**Appendix “D”: Interview Guideline**  
**MOTORCYCLISTS INSTRUCTORS**  
**OPEN UNIVERSITY OF TANZANIA (OUT)**  
**FACULTY OF BUSINESS MANAGEMENT**  
**Degree: Masters’ of Business Administration (Transport and Logistics)**  
**Interview Schedule**

Simon Peter P

P.O. Box 10625, Mwanza

Mob: +255 (0)752 888 993/ 685 902 626

Email: psp\_sha@yahoo.com

Institution/Organization name\_\_\_\_\_

**Dear Respondent,**

**The Title of this Study is:**

**Assessment of the Effectiveness of Motorcyclists Training in Reducing Road  
Accidents in Tanzania (A Case of Mwanza)**

*The main objective of the research is to assess the effectiveness of motorcyclists training  
program in reducing road accidents.*

### General Questions

Qn.1. How do you know the expected trainee is capable to sit for the motorcyclist training program?

.....  
 .....

Qn.2. What is the average number of trainees in one class? And why that number?

.....  
 .....

Qn.3. How do you know that the trainee who has completed the course is ready for riding motorcycle on road with other traffic?

.....  
 .....

Qn.4. What is your fees structure for the training course?

.....  
 .....  
 .....

Qn.5. How is the training program for the motorcyclists carried out in you are institution in terms of teaching sessions, theory, practical training, duration and the like?

.....  
 .....

Qn.6. Is there any standardize curriculum for motorcyclists training in Tanzania so that every institution provides training to motorcyclists by using it?

[ ] Yes

[ ] No

What is your opinion?

.....  
 .....

Qn.7. Is there any training course for experienced riders at your driving schools?

☐ Yes

☐ No

If yes, what are the contents of their curriculum?

.....  
 .....

Qn.8. Which language used for the training? Does it well-matched with the language which is mostly spoken by your trainees?

Qn.9. Do you have enough training tools and equipments for theory training and practical training?

☐ Yes

☐ No

What is your opinion referring to the answer above?

.....  
 .....  
 .....

### Appendix ‘E’: Observation Tool

#### TOOLS AND EQUIPMENTS OF THE INSTITUTION

#### OPEN UNIVERSITY OF TANZANIA (OUT)

#### FACULTY OF BUSINESS MANAGEMENT

**Degree: Masters’ of Business Administration (Transport and Logistics)**

#### Observation tool

Institution\_\_\_\_\_

**The Title of this Study is:**

**Assessment of the Effectiveness of Motorcyclists Training in Reducing Road Accidents in Tanzania (A Case of Mwanza)**

TOOLS AND EQUIPMENTS	EXCELLENT	VERY GOOD	GOOD	SATISFACTORY	POOR
Training environment such as Classrooms availability					
Number of motorcycles for practice					
Condition of motorcycles for practice					

Chairs and tables for trainees					
Open space for practical training					
Teaching materials such as books, writing boards, writing equipments					
Availability of protective equipments					
Training environment such as Classrooms condition					

*The main objective of the research is to assess the Effectiveness of motorcyclists training program in reducing road accidents.*



**Appendix “F”: Parking Areas with Number of Motorcycles in Mwanza**

# NUMBER OF PARKING AREAS WITH NUMBER OF MOTORCYCLES IN MWANZA

MAGU		SENGEREMA		ILEMELA		NYAMAGANA		MISUNGWI		UKEREWE		KWIMBA		TOTAL MOTOR CYCLES
PARKIN G	NO	PARKIN G	NO	PARKIN G	NO	PARKIN G	NO	PARKING	NO	PARKI NG	NO	PARKIN G	NO	
R MADI	78	NYEHU NGE	111	KAYENZ E	32	BUHON GWA	70	USAGARA KONA	25	SELEM A	20	NYAMBI TI	20	
KALEME LA	23	BUPAND WA	60	IGOMBE	38	MKOLA NIA	30	USAGARA CENTER	38	MAHEN DE	10	MWABIL ANDA	9	
N AMIK OMA	38	BULYA HILU	33	TX	17	MKOLA NIB	37	NYANG'O HORO	23	MULITI	20	NKALAL O	10	
N ASHI M...	57	MWANG IKA	13	AIRPOR T	18	NYEGEZ I	54	MAPILIN GA	13	KONA IGALA	15	KADASH I	10	
MASANZ A	73	KAHUN DA	50	JESHINI	30	NYEGEZ IKONA	37	MISUNGU	25	MULEZ I	10	MALYA	20	
NASA JINELI	39	KIGAMB A	17	ILEMEL A	21	NYEGEZ I KIIWEN	130	MEJMUA NA	16	SOKON I NANSI O	15	NGUDU	30	
NYASHO	47	KANYA LA	40	SABASA BA	114	MALIMB E ATM	108	MISASI	36	BODA	20	HUNGU MALO	20	
N WAM ANYILI	20	KATWE	9	ILIOGAN ZALA A	27	SAUTI KWA MASHA A	42	SHOKERA	43	KONA STAND	15	BUNGUL WA	10	
E BILA	10	KALEBE ZO	20	ILIOGAN ZALA B	19	SAUTI KWA MASHA B	31	MPALIKA	17	UBUNG O	8	SUMVI	15	
MAGU JINELI	67	NYAKA LILA	47	ILIOGAN ZALA C	29	SAUTI KWA MASHA C	22	KASOLEL I	13	MAISH A PLASI	10	MWABO MBA	9	
KAHANG A	38	BUKOK WA	46	PASIAN IA	38	NSUMB A	37	JENKOLO MIJE	17	KARIA KOO	20	NGULA	3	
NDIL YA	17	KOME	53	PASIAN IB	30	BUTIMB A KONA	56	BUKUMBI	24	SOKO MJING A	20			
IGEYE	57	NYAKA SASA	50	PASIAN IC	37	MKUYU NI	32			BULAM BA	10			
YANGU	62	LUGATA	37	NYAMA NORO	23	TAMBU KA LERI A	32			KITARE	15			
KISESA	123	MCHAN GANI	36	SELEMA NI	30	BUGARI KA	56			BUGUZ A	18			
NGASAM O	46	ISENI	5	KONA YA BWIRU A	30	AGHAK ANI	34			KAGUN GULI	15			



MALILI	41	NYAKA SUNGW A	10	KONA YA BWIRU B	30	NATA A	40			BUGOR OLA	20			
NHUYA	15	NYAMA ZUGO	11	KONA YA BWIRU C	38	NATA B	23			KAKUK UKLU	35			
M. IAH A	20	NYAMIZ EZE	17	NYASAK A MUSUM BI	32	NATA C	28			GWISH A	43			
M. JU MJINI	68	KABITA	30	KILOLEL I	37	MLANG O MMOJA A	36			NYAM ANGA	45			
		TABASA MU	50	MADUK A TISA	39	MLANG O MMOJA B	39			CHIFUL E	37			
		MISHEN I	56	MSUKA	50	NGOFIL O	22			BUKIK O	37			
		SIMA	30	KILIMA HEWA	23	MABATI NI	60							
		KATUN GULU	18	BUSWEL U	108	GBP A	40							
		NYAMU TELELA	17	BUSWEL U KONA	32	GBP B	36							
		NYAMA TONGO	60	NYAMO NGORO	36	ALINCE MAHINA A	27							
		TABUG UMBA	46	NATION AL	107	ALINCE MAHINA B	19							
		NYAMIS WI	8	NYAKAT O SOKONI	40	NATION AL MAHINA	119							
		BUHAM UHALUZ E	10	MECCO A	20	MACHIN JIONI	30							
		BUSISI	37	MECCO MELERA NI	48	KIJERES HI	83							
		BAYEKE STANDI	47	KANGA YE	20	NDAMA	37							
		DRARAJ ANI	28	NUNDU	30	IGOMA KATI	123							
		MISENE NIB	52	BUZURU GA MEL	66	IGOMA MAGU	47							
		SOKONI	40	BUZURU GA MITI MIREFU	37	LAVENA	12							





			A BUJILI		B									
					AZANIA BANK	13								
					SEKOUT URE	40								
					JIJI	27								
					MSALAB A MWEKU NDU	20								
					KAMAN GA A	36								
					KAMAN GA B	23								
					RAIL STATIO N	42								
					MWANZ A HOTELI	20								
					KEMON DO	40								
					MOHAM ED BUS STAND	23								
					SAMAKI ROUND ABOUT	30								
					POSTA KENTAT TA	42								
					KIRUMB A RESORT	23								
					MWATE X	32								
					TANESC O MJINI	37								
					TAMBU KA LERI B	27								
					PEPSI30	30								
					CHANNE LO	38								
					MAGELE	28								
TOTAL OTOR CYCLES	939		1266		1960	2815		290		458		156	7959	

SOURCE: THE UNION OF MOTORCYCLE RIDERS IN MWANZA

**Appendix “G”: Mwananchi News Paper Record of Accidents and Number of  
Motorcycles**



# Maoni

## Ajali za pikipiki sasa ni janga la kitaifa

**M**OJA ya habari za kusikitisha tuliyochapisha jana ni kufariki dunia kwa vijana watatu walio chini ya miaka 15 baada ya pikipiki waliyokuwa wamepanda kuligonga gari la Ofisa wa Polisi wa Kituo cha Polisi cha Mikumi, mkoani Morogoro. Kamanda wa Polisi katika mkoa huo, Faustine Shilogile alisema vijana hao walifariki kutokana na mwendo wa kasi.

Alisema taarifa alizozipata ni kwamba siku moja kabla ya vijana hao hawajapata ajali, walionekana wakijifunza kuendesha pikipiki hiyo, jambo alilosema linaonyesha kwamba hawakuwa na uelewa wa sheria za barabarani wala ujuzi wa kuendesha chombo hicho cha moto.

Ajali hiyo ni moja ya maelfu ya ajali za barabarani zinazohusu madereva wa pikipiki, maarufu kama Bodaboda ambazo tangu zilipoanza kuingizwa nchini mwaka 2009 zimechukua maisha ya maelfu ya madereva na abiria. Hakuna siku inayopita bila vyombo vya habari kuripoti vifo vinavyotokana na ajali za pikipiki katika sehemu nyingi nchini, huku zikiacha majeruhi wakiwa na vilema vya maisha.

Kutokana na kupuputika kwa idadi kubwa ya madereva na abiria wa Bodaboda, tunaweza kusema kwamba ajali zitokanazo na vyombo hivyo sasa zimekuwa janga la kitaifa. Kila kona ya nchi, mijini na vijijini ni vilio visivyoiisha. Hatuna uhakika kama Serikali iliporuhusu pikipiki zibebe abiria, tena kwa mtindo wa kubeba abiria wengi kwa wakati mmoja unaojulikana kama 'mshikaki' ilitambua madhara na athari za kufanya hivyo katika muktadha wa usalama wa watu na sheria za barabarani.

Serikali ilifanya makosa kuruhusu biashara ya usafiri wa pikipiki kufanyika kiholela pasipo udhibiti stahiki. Kwa kudhani kwamba ilikuwa imepata mwarobaini wa tatizo la ajira kwa vijana, ilishindwa kutumia busara kuangalia upande wa pili wa shilingi kuhusu athari za uamuzi huo. Hakuna maandalizi yoyote yaliyofanyika, kwa maana ya kuweka taratibu na kanuni za kusimamia biashara hiyo, ikiwa ni pamoja na kuandaa mafunzo kwa madereva wa vyombo hivyo kabla hawajaruhusiwa kuingia barabarani.

Takwimu za madhara yaliyotokana na udhaifu wa Serikali katika kusimamia usafiri huo zinatisha. Mwaka 2009 zilikuwapo pikipiki 87,826 na mwaka uliofuata ziliongeze ka hadi 134,831 kabla hazijafikia 500,000 mwaka huu. Ajali 3,409 zilizotokea mwaka 2009 zilisababisha vifo vya watu 502 wakati mwaka 2010 zilitokea ajali 4,363 na kusababisha vifo vya watu 683. Ajali ziliendelea kuongezeka, kwani mwaka 2011 zilitokea ajali 5,384 na kuua watu 945 wakati kuanzia Januari hadi Juni mwaka huu tayari ajali 2,601 zimetokea na kusitisha maisha ya watu 487.

Hii ina maana kwamba ifikapo mwishoni mwa mwaka huu, ajali za Bodaboda zitakuwa zimeua watu 1,000 na wengi wao wakiwa madereva wa pikipiki hizo. Serikali na Sumatra zisipochukua hatua stahiki nchi yetu itaendelea kupoteza nguvukazi kwa kasi ya ajabu na tutalazimika kutumia rasilimali nyingi kama taifa kuwahudumia maelfu kwa maelfu ya majeruhi waliopata na watakapata vilema vya maisha.

Serikali sasa ifanye nini? Lazima ichukue hatua badala ya kuwa mtazamaji. Usafiri huo Lazima uratibiwe kisheria na kimfumo, kwa maana ya kusimamia sheria za barabarani. Upo ushahidi kwamba madereva wengi wa pikipiki hawana leseni, licha ya kuwa na umri mdogo sana usioruhusiwa kisheria na wanakosa uelewa wa sheria za barabarani. Wengi wao wanaendesha vyombo hivyo wakiwa 'wamekunywa viroba', huku wengine wakiwa wamevuta bangi.

Ndiyo maana wameunda magenge ya kihalifu kiasi cha kushambulia watu, kuvamia vituo vya polisi na kuendesha vyombo hivyo kwa fujo na kasi ya ajabu. Tunadhani pia kwamba udhibiti wa biashara hiyo lazima uende sambamba na kuitoza kodi, kwani imegundulika kuwa ina faida kubwa kuliko hata biashara ya teksi. Wakati hayo yakifanyika ni matumaini yetu kwamba suala la mafunzo na elimu ya sheria za barabarani kwa madereva hao litapewa kipaumbele.

HUTOLEWA NA MWANANCHI COMMUNICATIONS LTD

Tido Mhando: Mkurugenzi Mtendaji

Theophil Makunga: Mhariri Mtendaji Mkuu

Dennis Msacky: Mhariri Mtendaji

PO BOX 172251, P.O. 10754 Dar es Salaam

## **Appendix “H”: Letters for Data Collection**



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Kituo cha Mkoa wa Mwanza,  
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<http://www.out.ac.tz>

Ref No. OUT/MZRC/SG/VOL.II/67

15<sup>th</sup> May, 2013

Lake Driving School  
**MWANZA**

**RE: INTRODUCING MR. PETER PETER SIMON, REG. NO. HD/B/717/T.12**


Kindly refer to the heading above.

The above mentioned is an active student of the Open University of Tanzania at Mwanza regional centre pursuing Masters of Business Administration (MBA) programme.

He intends to collect data for his Masters programme Titled **"Examination of Necessary Skills of Motorcyclist Operating Commercial Motorcycle in Tanzania (A CASE OF MWANZA)**.

Kindly accord him with necessary assistance.

Sincerely yours,  
**THE OPEN UNIVERSITY OF TANZANIA**

  
KAPAYA B.A  
**DIRECTOR**  
**MWANZA REGIONAL CENTRE**

**DIRECTOR**  
**OPEN UNIVERSITY OF TANZANIA**  
**MWANZA REGIONAL CENTRE**  
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**MWANZA**

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<http://www.out.ac.tz>

Ref No. OUT/MZRC/SG/VOL.II/72

15<sup>th</sup> May, 2013

TO WHOM IT MAY CONCERN

**RE: INTRODUCING MR. PETER PETER SIMON, REG. NO. HD/B/717/T.12**

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Kindly accord him with necessary assistance.

Sincerely yours,  
**THE OPEN UNIVERSITY OF TANZANIA**

*[Signature]*  
KAPAYA B.A  
**DIRECTOR**  
**MWANZA REGIONAL CENTRE**

**DIRECTOR**  
OPEN UNIVERSITY OF TANZANIA  
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<http://www.out.ac.tz>

Ref No. OUT/MZRC/SG/VOL.II/72

15<sup>th</sup> May, 2013

Motorcyclist  
**MWANZA**

**RE: INTRODUCING MR. PETER PETER SIMON, REG. NO. HD/B/717/T.12**


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He intends to collect data for his Masters programme Titled **"Examination of Necessary Skills of Motorcyclist Operating Commercial Motorcycle in Tanzania (A CASE OF MWANZA)**.

Kindly accord him with necessary assistance.

Sincerely yours,  
**THE OPEN UNIVERSITY OF TANZANIA**

  
**DIRECTOR**  
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Ref No. OUT/MZRC/SG/VOL.II/71

15<sup>th</sup> May, 2013

RTO,  
Police Force,  
**MWANZA**

**RE: INTRODUCING MR. PETER PETER SIMON, REG. NO. HD/B/717/T.12**

Kindly refer to the heading above.

The above mentioned is an active student of the Open University of Tanzania at Mwanza regional centre pursuing Masters of Business Administration (MBA) programme.

He intends to collect data for his Masters programme Titled "**Examination of Necessary Skills of Motorcyclist Operating Commercial Motorcycle in Tanzania (A CASE OF MWANZA)**".

Kindly accord him with necessary assistance.

Sincerely yours,

**THE OPEN UNIVERSITY OF TANZANIA**

*Kapaya B.A.*  
DIRECTOR  
OPEN UNIVERSITY OF TANZANIA  
MWANZA REGIONAL CENTRE  
P.O. Box 2281  
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KAPAYA B.A  
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15<sup>th</sup> May, 2013

Veta Driving School  
**MWANZA**

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Kindly accord him with necessary assistance.

Sincerely yours,  
**THE OPEN UNIVERSITY OF TANZANIA**

*[Signature]*  
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15<sup>th</sup> May, 2013

Victoria Driving School  
**MWANZA**

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Kindly accord him with necessary assistance.

Sincerely yours,

**THE OPEN UNIVERSITY OF TANZANIA**

KAPAYA B.A

**DIRECTOR**

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15<sup>th</sup> May, 2013

Igans Driving School  
**MWANZA**

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Sincerely yours,  
**THE OPEN UNIVERSITY OF TANZANIA**

*Kapaya*  
KAPAYA B.A  
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MWANZA

**Appendix “I”: Sample Size Calculator**



**Determine Sample Size**

Confidence Level: ☒ 95% ☐ 99%

Confidence Interval:

Population:

Sample size needed:

*Source: Survey System 2013*